SERKET سركت

The Arachnological Bulletin of the Middle East and North Africa

Volume 12 **Part 2**

November, 2010 **Cairo, Egypt**

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ISSN: 1110-502X

SERKET

Volume 12 Part 2
November, 2010 Cairo, Egypt

Contents

Subscription for volume 12 (2010-2011):
US $ 25.00 (personal rate), US $ 35.00 (institutional rate)
Back issues : Volume 1 (1987-1990), Vol. 2 (1990-1992), Vol. 4 (1994-1996), Vol. 5 (1996-1997), Vol. 6 (1998-2000), Vol. 7 (2000-2001), Vol. 8 (2002-2003), Vol. 9 (2004-2005), 10 (2006-2007), 11 (2008-2009):
US $ 25.00 (p.r.), US $ 35.00 (i.r.) per volume
Volume 3 (1992-1993): US $ 35.00 (p.r.), US $ 45.00 (i.r.)
Correspondence concerning subscription, back issues, publication, etc. should be addressed to the editor: **Hisham K. El-Hennawy**
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ISSN: 1110-502X

Serket (2010) vol. 12(2): 33-44.

The Turkish Harvestmen (Opiliones) with zoogeographical remarks

Kemal Kurt [1], Ö. Köksal Eman [2], Hakan Demir [3] & Osman Seyyar [4]
[1] Gümüşhane University, Şiran Vocational Scholl, TR-29700, Gümüşhane, Turkey
[2] Atatürk University, Science and Arts Faculty, Department of Biology, TR-25240 Erzurum, Turkey
[3] Gazi University, Science and Arts Faculty, Department of Biology, TR-06500 Ankara, Turkey
[4] Niğde University, Science and Arts Faculty, Department of Biology, TR-51200 Niğde, Turkey
Corresponding e-mail address: ozyptila@gmail.com

Abstract

The species of Turkish harvestmen fauna that were recorded by various authors from different localities of Turkey are zoogeographically evaluated. Also, chorotypes for each taxon are given with the zoogeographical remarks.

Keywords: Arachnida, Harvestmen, Opiliones, Turkey.

Introduction

Harvestmen (Opiliones) are represented by more than 6000 described species (Hallan, 2005), and comprise the third most diverse order of Arachnida. They are significant predators in natural ecosystems and often found in disturbed habitats as well as in forests, under stones, in caves, on the trunks of trees, on the soil, in forest litter, in soil crevices, and sometimes rather deep in the soil.

Harvestmen are common and abundant arachnids in Turkey. These animals are insufficiently studied in Turkey and there is a need to update faunal and ecological data. There are a few articles on the harvestmen fauna in Turkey. The first data on Turkish opilionid were published by foreigner arachnologists, such as Kulczyński (1903), Nosek (1905), Roewer (1923, 1950, 1956, 1957, 1959, 1962), Gruber (1968, 1969, 1976, 1979, 1998), Šilhavý (1955), Staręga (1973, 1976, 1981, 2003), Martens (1978, 2006) and Snegovaya (1999). Recently, harvestmen attracted the attention of Turkish authors and studies on opilionid fauna of Turkey have gradually increased (Bayram, 1994; Bayram *et al.*, 2005; Bayram & Çorak, 2007; Çorak & Bayram, 2007; Yiğit *et al.*, 2007; Kurt *et al.*, 2008a, 2008b; Bayram *et al.*, 2010).

Nowadays, such data about the Turkish harvestmen fauna have reached a considerable level. At present, 63 species and 1 subspecies belonging to 7 families have

been recorded from the country until the present time. The main aim of the present paper is to evaulate the Turkish harvestmen fauna zoogeographically and faunistically by using known data.

Material and Methods

In this paper, classification and nomenclature of the harvestmen suggested by Hallan (2005) are followed. Within the family, the genera and species are listed alphabetically. Distribution of species in geographical regions of Turkey is summarized in remarks according to Topçu *et al.* (2005) [MR = Marmara, AR = Aegean, BSR = Black Sea [WBR, MBR, EBR], CAR = Central Anatolia, EAR = East Anatolia, MER = Mediterranean, and SAR = Southeast Anatolia Regions]. The present zoogeographical characterization is based on the chorotype classification of Anatolian fauna, recently proposed by Vigna Taglianti *et al.* (1999). In this study, as possible as one chorotype description can be identified for each taxon. But this kind of description can not be possible for some taxa, so one, two or three chorotypes are used for them.

Results

Family Dicranolasmatidae Simon, 1879

Dicranolasma giljarovi Šilhavý, 1966
Distribution in Turkey: CAR, EAR. **World Distribution:** Eastern Mediterranean, Caucasia (Martens, 1965; Staręga, 1978; Snegovaya, 1999; Çorak, 2004; Bayram & Çorak, 2007). **Chorotype:** Turano-Mediterranean.

Dicranolasma hoberlandti Šilhavý, 1956
Distribution in Turkey: MR, MER. **World Distribution:** Southeast European, Eastern Mediterranean, Caucasia, Middle East (Martens, 1965; Gruber, 1969; Staręga, 1973; Bayram & Çorak, 2007). **Chorotype:** Turano-Mediterranean.

Dicranolasma ponticum Gruber, 1998
Distribution in Turkey: MBR, EBR. **World Distribution:** Southeast European, Eastern Mediterranean, Caucasia, Middle East (Gruber, 1998; Bayram & Çorak, 2007).
Chorotype: Turano-Mediterranean.

Dicranolasma ressli Gruber, 1998
Distribution in Turkey: CAR. **World Distribution:** Turkey (Gruber, 1968).
Chorotype: Anatolian.

Dicranolasma scabrum (Herbst, 1799)
Distribution in Turkey: MR, CAR, EAR. **World Distribution:** Central Europe to South Europe, Caucasia, Middle East (Martens, 1965; Staręga & Chevrizov, 1978; Karaman, 1995; Snegovaya, 1999; Çorak, 2004; Bayram & Çolak, 2007). **Chorotype:** W-Palearctic.

Family Ischyropsalididae Simon, 1879

Ischyropsalis hellwigi hellwigi (Panzer, 1794)
Distribution in Turkey: CAR. **World Distribution:** European (Spoek, 1975; Bliss & Martens, 1995; Klimeš, 2000; Novak & Gruber, 2000; Staręga, 2002; Komposch, 2004; Komposch & Gruber, 2004; Blick & Komposch, 2004; Hallan, 2005; Kurt *et al.,* 2008a).
Chorotype: European.

Family Nemastomatidae Simon, 1872

Giljarovia tenebricosa (Redikorzevi, 1936)
Distribution in Turkey: EBR. **World Distribution:** Caucasia, Turkey (Martens, 2006).
Chorotype: Turano-Anatolian.

Giljarovia turcica Gruber, 1976
Distribution in Turkey: MBR, EBR. **World Distribution:** Turkey (Gruber, 1976).
Chorotype: Anatolian.

Histricostoma caucasicum (Redikorzev, 1936)
Distribution in Turkey: EBR. **World Distribution:** Russia, Turkey, Georgia (Redikorzev, 1936; Roewer, 1951; Staręga, 1966, 1978; Snegovaya & Chemeris, 2004; Martens, 2006). **Chorotype:** E-European.

Mediostoma ceratocephalum Gruber, 1976
Distribution in Turkey: MER. **World Distribution:** Turkey (Gruber, 1976). **Chorotype:** Anatolian.

Mitostoma gracile (Redikorzew, 1936)
Distribution in Turkey: EBR, CAR. **World Distribution:** Russia, Caucasia, Bulgaria, Turkey (Staręga, 1976; Martens, 1978, 2006; Snegovaya & Chemeris, 2004).
Chorotype: E-European.

Nemastoma anatolicum Roewer, 1962
Distribution in Turkey: MER. **World Distribution:** Turkey (Roewer, 1962; Staręga, 1973). **Chorotype:** Anatolian.

Paranemastoma supersum (Roewer, 1951)
Distribution in Turkey: EBR. **World Distribution:** Georgia, Turkey (Martens, 2006).
Chorotype: Turano-Anatolian.

Paranemastoma werneri Kulczyński, 1903
Distribution in Turkey: Unknown exact locality. **World Distribution:** Turkey (Hallan, 2005). **Chorotype:** Anatolian.

Pyza anatolica (Roewer, 1959)
Distribution in Turkey: EAR, SAR. **World Distribution:** Turkey (Gruber, 1979).
Chorotype: Anatolian.

Pyza taurica Gruber, 1979
Distribution in Turkey: MER, CAR. **World Distribution:** Turkey (Gruber, 1979).
Chorotype: Anatolian.

Vestiferum alatum Martens, 2006
Distribution in Turkey: EBR. **World Distribution:** Georgia, Turkey (Martens, 2006).
Chorotype: Turano-Anatolian.

Family Phalangiidae Latreille, 1802

Buresilia macrina (Roewer, 1956)
Distribution in Turkey: Unknown exact locality. **World Distribution:** Turkey (Roewer, 1956; Staręga, 1981; Hallan, 2005). **Chorotype:** Anatolian.

Dasylobus kulczynskii Nosek, 1905
Distribution in Turkey: CAR. **World Distribution:** Turkey (Nosek, 1905; Hallan, 2005). **Chorotype:** Anatolian.

Egaenus convexus (C.L. Koch, 1835)
Distribution in Turkey: Unknown exact locality. **World Distribution:** Europe to Central Asia (Roewer, 1956; Staręga, 2000; Klimeš, 2000; Novak & Gruber, 2000; Komposch, 2004; Blick & Komposch, 2004; Komposch & Gruber, 2004).
Chorotype: Palearctic.

Egaenus marenzelleri Nosek, 1905
Distribution in Turkey: CAR. **World Distribution:** Turkey (Nosek, 1905; Hallan, 2005). **Chorotype:** Anatolian.

Homolophus funestus L. Koch, 1877
Distribution in Turkey: CAR. **World Distribution:** Siberia, Mongolia, Turkey (Blick & Komposch, 2004; Hallan, 2005; Stol, 2007; Kurt *et al.*, 2008b).
Chorotype: Central Asiatic-European.

Lacinius ephippiatus (C.L. Koch, 1885)
Distribution in Turkey: EAR. **World Distribution:** East Europe to North Europe, Caucasia, Turkey (Spoek, 1975; Martens, 1978; Stol, 1993, 2002, 2007; Bliss & Martens, 1995; Farzalieva & Esyunin, 1999; Vanhercke, 1999; Novak & Gruber, 2000; Klimeš, 2000; Staręga, 2002; Komposch, 2004; Komposch & Gruber, 2004; Blick & Komposch, 2004; Hallan, 2005; Çorak *et al.,* 2008). **Chorotype:** European.

Metaphalangium cirtaum (C.L. Koch, 1839)
Distribution in Turkey: Unknown exact locality. **World Distribution:** South Europe, Mediterranean (Cokendolpher, 1990; Bayram *et al.*, 2010).
Chorotype: S-European+Mediterranean.

Metaphalangium strandi (Nosek, 1905)
Distribution in Turkey: CAR. **World Distribution:** Turkey (Nosek, 1905; Hallan, 2005). **Chorotype:** Anatolian.

Metaplatybunus grandissimus (C.L. Koch, 1839)
Distribution in Turkey: Unknown exact locality. **World Distribution:** Eastern Mediterranean, Georgia (Roewer, 1912, 1923, 1956, 1959; Martens, 1966; Staręga, 1966; Mitov, 2000). **Chorotype:** E-Mediterranean.

Metaplatybunus petrophilus Martens, 1965
Distribution in Turkey: CAR, EAR. **World Distribution:** Eastern Mediterranean (Çorak, 2004; Bayram *et al.*, 2010). **Chorotype:** E-Mediterranean.

Mitopus morio (Fabricius, 1779)
Distribution in Turkey: CAR. **World Distribution:** European (Spoek, 1975; Martens, 1978; Stol, 1993, 2002, 2007; Bliss & Martens, 1995; Farzalieva & Esyunin, 1999; Vanhercke, 1999; Klimeš, 2000; Novak & Gruber, 2000; Staręga, 2002; Komposch & Gruber, 2004; Komposch, 2004; Blick & Komposch, 2004; Hallan, 2005). **Chorotype:** European.

Oligolophus hansenii (Kraepelin, 1896)
Distribution in Turkey: CAR. **World Distribution:** Central to West Europe, Turkey (Spoek, 1975; Stol, 1993, 2002, 2007; Bliss & Martens, 1995; Vanhercke, 1999; Staręga, 2002; Blick & Komposch, 2004; Hallan, 2005; Kurt *et al.*, 2008b). **Chorotype:** European.

Oligolophus tridens (C.L. Koch, 1836)
Distribution in Turkey: CAR. **World Distribution:** European (Spoek, 1975; Martens, 1978; Vanhercke, 1999; Klimeš, 2000; Novak & Gruber, 2000; Staręga, 2002; Komposch & Gruber, 2004; Komposch, 2004; Blick & Komposch, 2004; Hallan, 2005; Stol, 2007; Kurt *et al.*, 2008b). **Chorotype:** European.

Opilio hemseni Roewer, 1952
Distribution in Turkey: EBR. **World Distribution:** Ukraine, Russia, Georgia, Turkey, Iran (Staręga, 2003). **Chorotype:** E-European+ Irano-Anatolian.

Opilio insulae Roewer, 1956
Distribution in Turkey: AR. **World Distribution:** Ukraine, Greece, Turkey (Gruber, 1978; Bayram *et al.*, 2010). **Chorotype:** E-European.

Opilio lederi Roewer, 1911
Distribution in Turkey: EAR, SAR. **World Distribution:** European, Caucasia, Central Asia, North Africa, Turkey (Gruber, 1979; Bayram *et al.*, 2010). **Chorotype:** Palearctic.

Opilio parietinus (De Geer, 1778)
Distribution in Turkey: CAR. **World Distribution:** European, Caucasia, Central Asia, North Africa, Turkey (Šilhavý, 1966; Spoek, 1975; Hillyard & Sankey, 1989; Bliss & Martens, 1995; Snegovaya, 1999; Vanhercke, 1999; Klimeš, 2000; Novak & Gruber, 2000; Staręga, 2002; Komposch & Gruber, 2004; Çorak, 2004; Komposch, 2004; Blick & Komposch, 2004; Stol, 2007). **Chorotype:** Palearctic.

Opilio redikorzevi Roewer, 1956
Distribution in Turkey: CAR. **World Distribution:** Caucasia, Turkey (Redikorvez, 1936; Šilhavý, 1966; Kurt *et al.*, 2008b). **Chorotype:** Turano-Anatolian.

Opilio saxatilis C.L. Koch, 1839
Distribution in Turkey: CAR, EAR. **World Distribution:** European (Šilhavý, 1966; Spoek, 1975; Martens, 1978; Hillyard & Sankey, 1989; Bliss & Martens, 1995; Snegovaya, 1999; Vanhercke, 1999; Klimeš, 2000; Mitov, 2000; Novak & Gruber, 2000; Staręga, 2002; Blick & Komposch, 2004; Çorak, 2004; Komposch, 2004; Komposch & Gruber, 2004; Hallan, 2005; Stol, 2007). **Chorotype:** European.

Opilio validus Roewer, 1959
Distribution in Turkey: Unknown exact locality. **World Distribution:** Turkey (Mitov, 2000). **Chorotype:** Anatolian.

Phalangium opilio Linnaeus, 1761
Distribution in Turkey: CAR. **World Distribution:** European (Šilhavý, 1966; Spoek, 1975; Martens, 1978; Hillyard & Sankey, 1989; Bliss & Martens, 1995; Snegovaya, 1999; Vanhercke, 1999; Klimeš, 2000; Novak & Gruber, 2000; Staręga, 2002; Blick & Komposch, 2004; Çorak, 2004; Komposch, 2004; Komposch & Gruber, 2004; Hallan, 2005; Stol, 2007;). **Chorotype:** European.

Phalangium punctipes (C.L. Koch, 1878)
Distribution in Turkey: CAR. **World Distribution:** Cuba, Congo, Central Asia, Caucasia, Eastern Mediterranean (Šilhavý, 1966; Blick & Komposch, 2004; Hallan, 2005; Kurt *et al.*, 2008b; Stol, 2007). **Chorotype:** Palearctic+Neotropical+Afrotropical.

Phalangium savignyi Audouin, 1825
Distribution in Turkey: MER. **World Distribution:** Russian, Caucasia, Mediterranean (Cokendolpher, 1990; Bayram *et al.*, 2010). **Chorotype:** Mediterranean.

Platybunoides argaea Šilhavý, 1956
Distribution in Turkey: CAR. **World Distribution:** Turkey (Šilhavý, 1956).
Chorotype: Anatolian.

Platybunus anatolicus Roewer, 1956
Distribution in Turkey: CAR. **World Distribution:** Turkey (Roewer, 1956).
Chorotype: Anatolian.

Rafalskia cretica (Roewer, 1923)
Distribution in Turkey: Unknown exact locality. **World Distribution:** Eastern Mediterranean (Mitov, 2003). **Chorotype:** E-Mediterranean.

Rafalskia olympica (Kulczyński, 1903)
Distribution in Turkey: MR. **World Distribution:** Turkey (Staręga, 1981; Karaman, 2002; Hallan, 2005). **Chorotype:** Anatolian.

Rilaena gruberi Staręga, 1973
Distribution in Turkey: EAR. **World Distribution:** Iraq, Turkey (Staręga, 1973).
Chorotype: SW-Asiatic (Irano-Anatolian).

Zachaeus anatolicus (Kulczyński, 1923)
Distribution in Turkey: CAR. **World Distribution:** Eastern Mediterranean, Yugoslavia, Azerbaijan (Staręga, 1978; Snegovaya, 2002). **Chorotype:** Turano-Mediterranean.

Zachaeus crista (Brullé, 1832)
Distribution in Turkey: CAR, WBR. **World Distribution:** European, Turkey, Azerbaijan (Martens, 1965; Gruber, 1969, 1979; Hillyard & Sankey, 1989; Snegovaya, 1999; Klimeš, 2000; Çorak, 2004; Komposch, 2004; Bayram & Çorak, 2007).
Chorotype: European.

Zachaeus hebraicus (Simon, 1884)
Distribution in Turkey: MER. **World Distribution:** Eastern Mediterranean, Middle East (Roewer, 1923, 1956; Staręga, 1967, 1973). **Chorotype:** E-Mediterranean.

Zachaeus orchimonti (Giltay, 1933)
Distribution in Turkey: Unknown exact locality. **World Distribution:** Turkey (Giltay, 1933; Hallan, 2005). **Chorotype:** Anatolian.

Family Sclerosomatidae Simon, 1879

Leiobunum albigenium Sørensen, 1911
Distribution in Turkey: MER. **World Distribution:** Eastern Mediterranean (Šilhavý, 1956). **Chorotype:** E-Mediterranean.

Leiobunum ghigii Di Caporiacco, 1927
Distribution in Turkey: Unknown exact locality. **World Distribution:** Eastern Mediterranean (Di Caporiacco, 1929; Gruber, 1968). **Chorotype:** E-Mediterranean.

Leiobunum rotundum (Latreille, 1798)
Distribution in Turkey: CAR. **World Distribution:** European (Šilhavý, 1966; Spoek, 1975; Martens, 1978; Hillyard & Sankey, 1989; Bliss & Martens, 1995; Snegovaya, 1999; Vanhercke, 1999; Klimeš, 2000; Novak & Gruber, 2000; Staręga, 2002; Blick & Komposch, 2004; Çorak, 2004; Komposch, 2004; Komposch & Gruber, 2004; Hallan, 2005; Kurt *et al.*, 2008a; Stol, 2007). **Chorotype:** European.

Leiobunum rupestre (Herbst, 1799)
Distribution in Turkey: CAR. **World Distribution:** European (Martens, 1978; Martens, 1995; Klimeš, 2000; Novak & Gruber, 2000; Staręga, 2002; Blick & Komposch, 2004; Komposch, 2004; Bliss & Komposch, 2004; Hallan, 2005; Kurt *et al.*, 2008a; Stol, 2007). **Chorotype:** European.

Leiobunum seriatum Simon, 1878
Distribution in Turkey: MER. **World Distribution:** Eastern Mediterranean, Middle East (Šilhavý, 1955; Staręga, 1973). **Chorotype:** E-Mediterranean.

Family Sironidae Simon, 1879

Cyphophthalmus duricorius bithynicus (Gruber, 1969)
Distribution in Turkey: MR. **World Distribution:** Turkey (Gruber, 1968).
Chorotype: Anatolian.

Cyphophthalmus duricorius yalovensis (Gruber, 1969)
Distribution in Turkey: MR. **World Distribution:** Turkey (Gruber, 1968).
Chorotype: Anatolian.

Family Trogulidae Sundevall, 1833

Calathocratus beieri Gruber, 1968
Distribution in Turkey: MER. **World Distribution:** Turkey (Gruber, 1968; Schönhofer, 2009). **Chorotype:** Anatolian.

Platybessobius caucasicus Šilhavý, 1966
Distribution in Turkey: Unknown exact locality. **World Distribution:** Russia, Caucasia, Turkey (Roewer, 1923, 1950; Redikorvez, 1936; Šilhavý, 1955; Snegovaya, 1999). **Chorotype:** E-European.

Platybessobius singularis Roewer, 1940
Distribution in Turkey: MER, AR, CAR, MR, WBR. **World Distribution:** Caucasia, Turkey, Greece (Šilhavý, 1966; Gruber, 1968; Schönhofer, 2009).
Chorotype: Turano-Mediterranean (Balkano-Anatolian).

Trogulocratus rhodiensis Gruber, 1963
Distribution in Turkey: MR, AR. **World Distribution:** Turkey, Greece (Martens, 1965; Gruber, 1978). **Chorotype:** Turano-Mediterranean (Balkano-Anatolian).

Trogulus graecus Dahl, 1903
Distribution in Turkey: Unknown exact locality. **World Distribution:** Eastern Mediterranean (Staręga, 1976; Mitov, 2000; Schönhofer, 2009). **Chorotype:** E-Mediterranean.

Trogulus gypseus Simon, 1879
Distribution in Turkey: MER, AR. **World Distribution:** Mediterranean (Roewer, 1959; Martens, 1965; Gruber, 1968; Schönhofer, 2009). **Chorotype:** Mediterranean.

Trogulus tricarinatus (Linnaeus, 1758)
Distribution in Turkey: MR. **World Distribution:** Central to South Europe (Roewer, 1959; Gruber, 1968; Martens, 1978; Mitov, 2000, Schönhofer, 2009). **Chorotype:** European.

Trogulus uncinatus Gruber, 1973
Distribution in Turkey: MR. **World Distribution:** Turkey (Gruber, 1968; Schönhofer, 2009). **Chorotype:** Anatolian.

Zoogeographical Remarks

Turkish harvestmen include 63 species and 1 subspecies belonging to 7 families. They have different chorotypes as follows:

19 species (+ 1 subspecies), about 31%, have "Anatolian" chorotype. They are endemic to Turkey. These taxa are: *Buresilia macrina*, *Calathocratus beieri*, *Cyphophthalmus duricorius bithynicus*, *C. d. yalovensis*, *Dasylobus kulczynskii*, *Dicranolasma ressli*, *Egaenus marenzelleri*, *Giljarovia turcica*, *Mediostoma ceratocephalum*, *Metaphalangium strandi*, *Nemastoma anatolicum*, *Opilio validus*, *Paranemastoma werneri*, *Platybunoides argaea*, *Platybunus anatolicus*, *Pyza anatolica*, *P. taurica*, *Rafalskia olympica*, *Trogulus uncinatus*, *Zachaeus orchimonti*.

11 species, about 18%, have "European" chorotype. These taxa are: *Ischyropsalis hellwigi hellwigi*, *Lacinius ephippiatus*, *Leiobunum rotundum*, *L. rupestre*, *Mitopus morio*, *Oligolophus hansenii*, *O. tridens*, *Opilio saxatilis*, *Phalangium opilio*, *Trogulus tricarinatus* and *Zachaeus crista*.

8 species, about 11%, have "E-Mediterranean" chorotype. These taxa are: *Leiobunum albigenium*, *L. ghigii*, *L. seriatum*, *Metaplatybunus grandissimus*, *M. Petrophilus*, *Rafalskia cretica*, *Trogulus graecus* and *Zachaeus hebraicus*.

6 species, about 8%, have "Turano-Mediterranean" chorotype. These taxa are: *Dicranolasma giljarovi*, *D. hoberlandti*, *D. ponticum*, *Platybessobius singularis*, *Trogulocratus rhodiensis* and *Zachaeus anatolicus*.

4 species, about 6%, have "Turano-Anatolian" chorotype. These taxa are: *Giljarovia tenebricosa*, *Opilio redikorzevi*, *Paranemastoma supersum* and *Vestiferum alatum*.

4 species, about 6%, have "E-European" chorotype. These taxa are: *Histricostoma caucasicum*, *Mitostoma gracile*, *Opilio insulae* and *Platybessobius caucasicus*.

3 species, about 5%, have "Palearctic" chorotype. These taxa are: *Egaenus convexus*, *Opilio lederi* and *O. parietinus*.

2 species, about 3%, have "Mediterranean" chorotype. These taxa are: *Phalangium savignyi* and *Trogulus gypseus*.

Each, 1 species, about 2%, of the remaining species has a different chorotype.
Dicranolasma scabrum has "W-Palearctic" chorotype.
Homolophus funestus has "Central Asiatic-European" chorotype.
Metaphalangium cirtaum has "S-European+Mediterranean" chorotype.
Opilio hemseni has "E-European+Irano-Anatolian" chorotype.
Phalangium punctipes has "Palearctic+Neotropic+Afrotropical" chorotype.
Rilaena gruberi has "SW-Asiatic (Irano-Anatolian)" chorotype.

So, most Turkish harvestmen species belongs to Anatolian chorotype (31 %). European and E-Mediterranean chorotypes (29 %) follow them.

Acknowledgment

We are very grateful to Dr. Natali Snegovaya (Azerbaijan) for her advice and her valuable comments.

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A new name for a preoccupied specific epithet in the genus *Metaphalangium* Roewer, 1911 (Opiliones: Phalangiidae)

Hüseyin Özdikmen [1], Kemal Kurt [2] & Hakan Demir [1]
[1] Gazi University, Science and Arts Faculty, Department of Biology, TR-06500 Ankara, Turkey
[2] Gümüşhane University, Şiran Vocational Scholl, TR-29700, Gümüşhane, Turkey
Corresponding e-mail address: ozdikmen@gazi.edu.tr, kemalkurtmyo@gmail.com

Abstract

According to the International Code of Zoological Nomenclature (ICZN, 1999), *Metaphalangium strandi* Caporiacco, 1948 is not correct because the specific epithet is illegitimate. The authors request the replacement name of the specific epithet *strandi* Caporiacco, 1948 and they suggest *rhodesensis* nom. nov. Accordingly, new combination is herein proposed for the species: *Metaphalangium rhodesensis* nom. nov. pro *Metaphalangium strandi* Caporiacco, 1948 syn. n.

Keywords: Nomenclatural change, homonymy, replacement name, Opiliones, Phalangiidae, *Metaphalangium*.

Family Phalangiidae
Genus *Metaphalangium* Roewer, 1911
Species *Metaphalangium rhodesensis* nom. nov.

Metaphalangium strandi Caporiacco, 1948. L'aracnofauna di Rodi. Redia, 33, 27-75 (Opiliones: Phalangiidae). Preoccupied by *Metaphalangium strandi* (Nosek, 1905). Araneiden, Opilionen und Chernetiden. *In*: Penther, A., Zederbauer, E., Ergebnisse einer naturwissenschaftliche Reise zum Erdschais-Dagh (Kleinasien). Annalen des Natur-historischen Museums in Wien, 20, 114–154 (Opiliones: Phalangiidae).

The names *Metaphalangium strandi* (Nosek, 1905) and *Metaphalangium strandi* Caporiacco, 1948 were included in the family Phalangiidae.

The specific epithet *strandi* was initially introduced by Nosek (1905) with the original combination *Phalangium strandi* Nosek, 1905 from Niğde province in CSE Turkey. It is still used as a valid species name.

Subsequently, Caporiacco (1948) described a new species from Rhodes Island with the same specific epithet as *Metaphalangium strandi* Caporiacco, 1948 by original combination. According to Gruber (1978), Martens (1965) accepted the species *Metaphalangium strandi* Caporiacco, 1948 might be identical with *Zacheus crista* (Brullé, 1832). However, it is still used as a valid species name.

Metaphalangium strandi (Nosek, 1905) has priority over *Metaphalangium strandi* Caporiacco, 1948. Thus, *Metaphalangium strandi* Caporiacco, 1948 is illegitimate and consequently can not be correct. The name *Metaphalangium strandi* Caporiacco, 1948 is a primary junior homonym of the name *Metaphalangium strandi* (Nosek, 1905). According to Article 60 of the International Code of Zoological Nomenclature (1999), it must be rejected and replaced. It has no synonym. So, we propose for the specific epithet *strandi* Caporiacco, 1948 the replacement name *rhodesensis* nom. nov.

Etymology: The name is dedicated to Rhodes Island that is the type locality for *Metaphalangium strandi* Caporiacco, 1948.

Summary of nomenclatural changes:

Genus *Metaphalangium* Roewer, 1911

Species *Metaphalangium rhodesensis* nom. nov.
pro *M. strandi* Caporiacco, 1948 syn. n., [nec *M. strandi* (Nosek, 1905)]
[orig. comb.: *Metaphalangium strandi* Caporiacco, 1948 from Rhodes Island]

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Systematics of the philodromid spider fauna of Uludağ Mountain region (Araneae: Philodromidae) with a review of the Philodromidae in Turkey

Zeyhan Uyar, Rahşen S. Kaya & İsmail H. Uğurtaş
Department of Biology, Faculty of Science and Art, Uludağ University, TR-16059 Nilüfer, Bursa, Turkey
Corresponding e-mail address: zeyhanuyar@gmail.com

Abstract

Philodromid spiders were collected and examined between the years of 2006-2009 from the Uludağ Mountain. The paper presents distribution of 7 species from the genera *Philodromus* and *Thanatus*. *Philodromus aureolus* (Clerck, 1757) and *Thanatus atratus* Simon, 1875 are the most dominant species among philodromids. *Philodromus rufus* Walckenaer, 1826 and *P. collinus* C.L. Koch, 1835 are rare spiders. This paper presents an annotated checklist of the Philodromidae of Turkey which includes 38 species of four genera.

Keywords: Araneae, Philodromidae, Uludağ Mountain, Bursa, Turkey.

Introduction

Philodromid spiders usually have elongate bodies and quite long slender legs with the back pairs nearly as well-developed as the front ones (Levy, 1977). The philodromids have elongate legs of about equal length, except for species of *Ebo* which have the second pair of legs much longer than the first (Jennings & Cutler, 1996). The Philodromidae are active hunters and have claw tufts and scopulae on the metatarsi and tarsi of legs. Those species which wait camouflaged in flowers, and ambush visiting insect, have venom which is apparently highly toxic to insects such as bumble bees, which are much larger than the spiders themselves (Roberts, 1995). Philodromids make little use of silk other than in constructing egg sacs (Levy, 1977).

For a long time, philodromid spiders were regarded as a derived taxon of crab spiders, and were allocated to subfamily rank within the Thomisidae (Muster, 2009). Detailed studies of embryological characters, chromosomes and eye structure later suggested that Philodromidae and Thomisidae are not closely related to each other (Muster, 2009).

The spider family Philodromidae Thorell, 1870 comprises 536 species in 29 genera in the world (Platnick, 2010; Logunov & Kunt, 2010). The checklist of Philodromidae fauna of Turkey (Demir, 2008) included 27 species. As pointed out by Logunov & Kunt (2010), records of some species remain doubtful and require verification based upon reference to the pertinent material. For instance, *Philodromus lividus* Simon, 1875 was recorded by Kulczyński (1903) from Bursa, but its confirmed distribution is restricted to the western Mediterranean, from Spain and Algeria eastward as far as Italy (Logunov & Kunt, 2010). Two species from Turkey: *Philodromus krausi* Muster & Thaler, 2004 and *P. lunatus* Muster & Thaler, 2004 are described as new species. Thereafter, *Philodromus femurostriatus* Muster, 2009 and *P. pinetorum* Muster, 2009 are described as new from Turkey. The Philodromidae of Turkey includes 38 species of four genera (Bayram *et al.*, 2010; Demir, 2008; Logunov & Huseynov, 2008; Logunov & Kunt, 2010). A very conservative estimate could be at least 45 species (Logunov & Kunt, 2010). Although this number of species is higher than those of neighbouring countries such as Greece (27 species), Azarbaijan (22 species) or Israel (19 species), it is hardly exhaustive (Logunov & Kunt, 2010).

Philodromus bonneti Karol, 1968, *Philodromus bucaensis* (Logunov & Kunt, 2010), *Philodromus krausi* Muster & Thaler, 2004, *Thanatus okayi* Karol, 1966, and *Thanatus nitidus* Logunov & Kunt, 2010 are endemic philodromids for Turkey (Muster & Thaler, 2004; Platnick, 2010; Logunov & Kunt, 2010).

Fig. 1. The localities from which spider specimens were collected in Uludağ Mountain.

Material and Methods

The specimens were collected from Uludağ mountain, Turkey in the spring and summer months of 2006-2009 (Fig. 1). They were collected from under stones, on ground and on plants by hand sampling, aspirator, sweeping and beating bushes and trees. In this study, only adult spiders were identified, and specimens were preserved in 70 % ethanol. The studied specimens are deposited in the Department of Biology, Zoology Museum, Uludağ University, Bursa, Turkey.

Identification was made by stereo microscope using the keys of Nentwig *et al.* (2003), Logunov & Huseynov (2008), Muster & Thaler (2003), Muster (2009), Roberts (1995), and Segers (1992). In this study, drawings of palpus, epigynum, and vulvae of the species are presented.

The terminology of male and female genital morphology mostly follows Muster & Thaler (2004) and Muster (2009). Abbreviations used in the text are:

aSDL : ascending part of sperm duct loop, dSDL : descending part of s. d. l.,
ITA : intermediate tibial apophysis, RTA : retrolateral t. a., VTA : ventral t. a.

Results and Discussion

Genus *Philodromus* Walckenaer, 1826

Spiders with oval to angularly shaped body. Carapace is about as long as wide, narrowing in front. Eyes approximately of the same size; eyes of anterior row closer together than eyes of posterior row; lateral eyes of both rows sometimes with small eye tubercles; posterior-median eyes situated closer to posterior-lateral eyes than to each other; median quadrangle of eyes wider than long, or nearly so, with posterior side usually wider than in front. Legs moderately long and slender, second pair slightly longer than others, but legs of nearly equal length; distal joints armed ventrally with scopulae and claw tufts. Abdomen is usually oval and rounded at sides, sometimes with median dark mark and posterior stripes or chevrons (Levy, 1977).

Philodromus aureolus (Clerck, 1757) (Figs. 2-4)

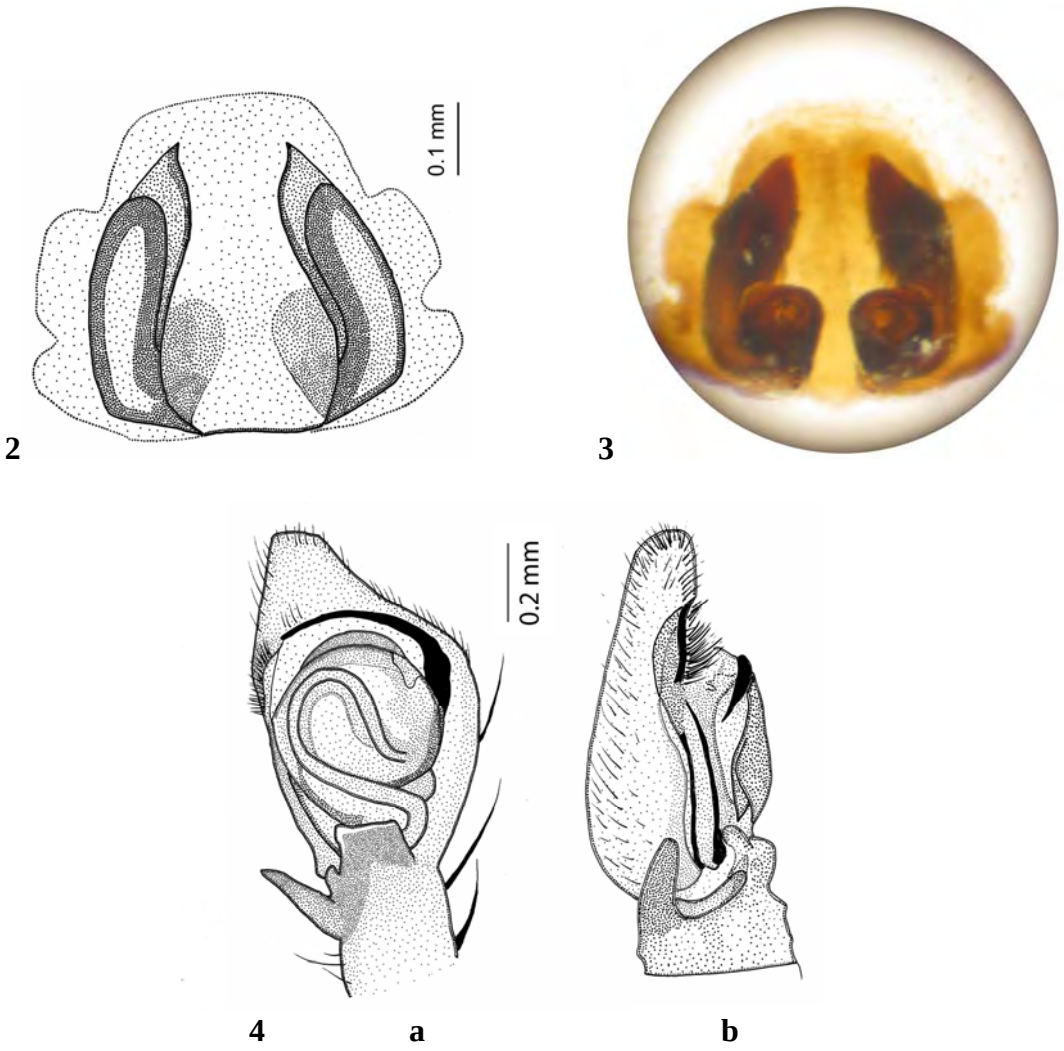
Material examined: 1♂, 1♀, Kadıyayla, (1.252 m), 23.07.2006; 4♀♀, Saadet, (590 m), 02.07.2007; 1♀, Uludağ, 07.2006; 1♀, around Küçükdeliler, (1.050 m), 07.08.2007; 2♀♀, Kirazlıyayla, (1.505 m), 29.07.2008.

This species was found on *Silene compacta*, *Mentha spicata*, *Eryngium* sp.

Description: Female: Total body length 4.04-5.71 mm. Earth-coloured. Carapace is a little wider than long and circular shaped. Colouration of carapace dark brown and the middle of carapace is light. Lateral eyes > median eyes. Anterior median eyes are closer to anterior lateral eyes than to each other. Posterior median eyes are closer to lateral eyes than to each other. Distance between anterior median eyes shorter than distance between posterior median eyes and trapezium formed by four median eyes. Eyes except the posterior median eyes, looking semi-circular shaped, arranged in a row as seen from above. Sternum is swollen, with weak hairs, almost as long as wide. Labium is as long as wide. Abdomen is longer than wide. The abdominal folium is brown or almost blackish brown. Hairs on the abdomen are weak. The ventral side of the abdomen is lighter than the dorsal side. Legs yellowish brown or grey with small brown patches and with rare short hairs. First pair and second pair of legs are longer than others. Epigyne is distinctive and large, wider than long. Median septum is bottle-like. There is not sclerotised arch. Receptacula are nearly half as long as copulatory ducts. Glandular mounds are flat.

Male: Total body length 5.23 mm. Carapace is much less wider than long, and is circular. Carapace is brown. Lateral eyes > median eyes. Anterior median eyes are closer to the anterior lateral eyes than to each other. Posterior median eyes are closer to lateral eyes than to each other. Distance between anterior median eyes shorter than distance between posterior median eyes and trapezium formed by four median eyes. Eyes except the posterior median eyes, looking semi-circular shaped, arranged in a row as seen dorsally and frontally. Sternum is longer than wide. Labium is as long as wide. Abdomen is longer than wide and its dorsal surface with weak short blackish brown hairs. The ventral side of the abdomen is lighter than the dorsal side. Legs are yellowish brown with rare short hairs and spines. First pair and second pair of legs are longer than others. Embolus is slightly curved and sickle-shaped; tibia with ventral, intermediate and retrolateral apophyses; VTA large, quadrangular and thick; ITA short; RTA long and almost touching cymbial process. Cymbium is a little broad.

World Distribution: Palaearctic (Platnick, 2010).

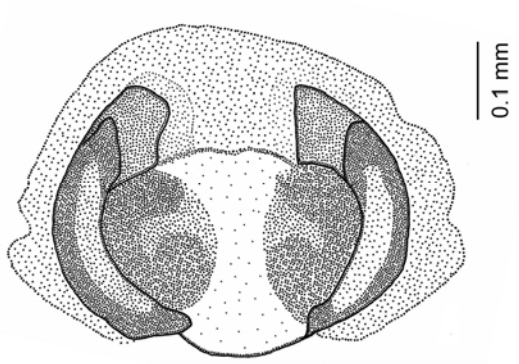


Figs. 2-4: *Philodromus aureolus* (Clerck, 1757).
2. Female, epigynum, ventral view. 3. Female, vulvae, dorsal view.
4. Male right palpus, ventral view (a), lateral view (b).

Remarks: This species was formerly confused with *P. cespitum* (Muster & Thaler, 2004; Segers, 1992). In *P. praedatus*, the upper edge of the ventral apophysis is bi-divided and the retrolateral apophysis is bent, whereas in *P. aureolus* the upper edge of the ventral apophysis as well as the retrolateral apophysis are straight (Segers, 1990). One further difference is the shape of the embolus which is smoothly curved in *P. aureolus*, whereas in *P. praedatus* it is distinctly more curved in the proximal part (Segers, 1990). As pointed out by Segers (1990), females of species of the *P. aureolus* group are known to show important intraspecific variability in epigyne and vulvae (Braun, 1965; Snazell, 1976), it is not possible to identify the two species by examining the epigyne only.

The male specimens figured as *P. aureolus* from Israel by Levy (1977) are similar but the specimens figured as *P. aureolus* from the Mediterranean by Muster & Thaler (2004) are different. VTA with oblique border, ITA well expressed like specimens of Israel unlike the Mediterranean specimens. The epigyne figured from Israel by Levy (1977) are different: median septum of epigyne with distinct arch whereas our specimens do not have distinct arch. The epigyne figured as *P. aureolus* from Mediterranean by Muster & Thaler (2004) is similar.

Philodromus cespitum (Walckenaer, 1802) (Figs. 5, 6)
Material examined: 1♀, Akıncılar, (470 m), 16.07.2006; 1♀, Alaçam, (770 m), 17.09.2006; 1♀, Avdan, (620 m), 07.08.2007.
This species was found on *Eryngium campestre*.
Description: Female: Total body length 3.7-5.0 mm. Earth-coloured. A slim cream coloured line is extending from the middle of the posterior eyes until the middle of the carapace. There is a cream coloured anchor-like pattern in the middle of the carapace. Eyes are approximately of the same size. Anterior median eyes are closer to the anterior lateral eyes than to each other. Distance between anterior median eyes is shorter than distance between posterior median eyes. Posterior median eyes are closer to posterior lateral eyes than to each other. Row of eyes except the posterior median eyes is semi-circular shaped as anteriorly seen. Labium and sternum are approximately as long as wide. Sternum earth-coloured, like shield. Abdomen is earth-brown, as long as wide, with a dark brown dorsal pattern. Legs are brown with rare short hairs. First pair and second pair of legs are longer than others. Metatarsi and tarsi of all legs with short hairs on the ventral part. Epigyne is quite distinctive and wider than long, with a distinct median plate separated by a quite developed sclerotised arch; median plate almost as long as wide; atrium is narrower than median plate; copulatory duct half ring-shaped and receptacula half as long as copulatory duct; glandular mound is unnoticeable.
World Distribution: Holarctic (Platnick, 2010).



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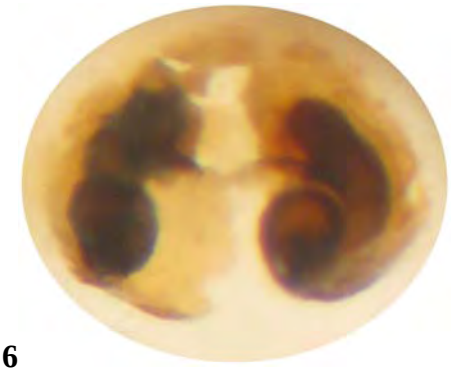

6

Figs. 5-6. *Philodromus cespitum* (Walckenaer, 1802). Female.
5. Epigynum, ventral view. 6. Vulvae, dorsal view.

Remarks: *P. aureolus similis* is believed to be a junior synonym of *P. cespitum* (Segers, 1992). Being one of the most frequent *Philodromus*-species in central Europe, *P. cespitum* reaches higher latitudes more than all of its congeners (Palmgren, 1983; Muster & Thaler, 2004). *P. cespitum* seems to be rare in the Mediterranean region; most of the numerous old records certainly refer to misidentification when compared with recently redescribed or reinstalled species of this group (Muster & Thaler, 2004). Uludağ is not exactly Mediterranean. Females can be distinguished from those of *P. longipalpis* by their smaller epigyne and by their overall darker colour. The epigyne of *P. fuscolimbatus* has an atrium which is at least as wide as the median plate, whereas in *P. cespitum* the atrium is normally narrower than the median plate (Segers, 1992). *P. cespitum* from Italy examined by Muster & Thaler (2004: 314, fig. 22a) is similar to our specimens' epigyne of *P. cespitum*.

Philodromus collinus C. L. Koch, 1835 (Fig. 7)
Material examined: 1♂, Kirazlıyayla, (1.505 m), 29.07.2008.
This species was found on the ground.

Description: Male: Total body length 3.6 mm. Carapace as long as wide, rounded, dark brown. Eyes are approximately of the same size. Distance between anterior median eyes is approximately equal to distance between anterior lateral eyes. Distance between anterior median eyes is smaller than distance between the posterior median eyes. Posterior median eyes are closer to the lateral eyes than to each other. Eyes except the posterior median eyes, looking semi-circular shaped arranged in a row as seen from above. Labium and sternum are longer than wide. Abdomen is longer than wide. The dorsal side of the abdomen is dark brown, darker than the carapace. First pair and second pair of legs are much longer than others. Legs are slender, with long rare spines and rare hairs. Legs are brown, lighter than carapace and abdomen. There are small dark brown patches on legs. Embolus slim, of intermediate length, with a slight curve upwards and half a circle; tibia with ventral and retrolateral apophyses; ITA not developed; VTA looks like snake's head; RTA thin, long, pencil-like.
World Distribution: Europe, Russia (Platnick, 2010).

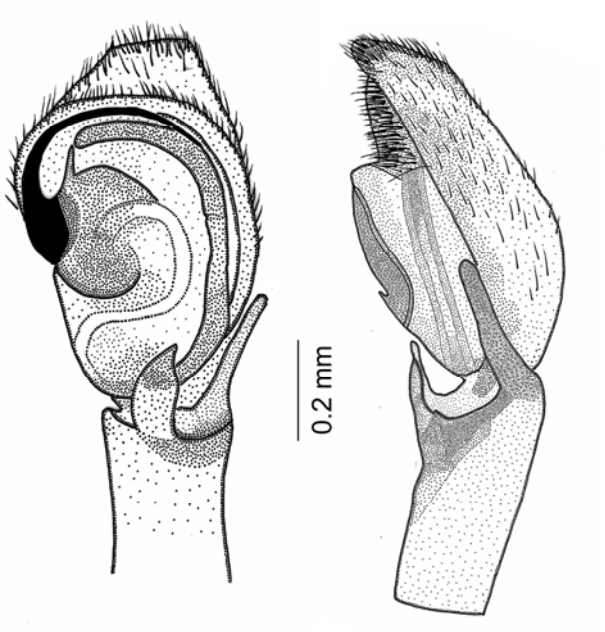


Fig. 7. *Philodromus collinus* C. L. Koch, 1835
Male left palpus, ventral view (a), lateral view (b).

Remarks: It is possibly restricted to higher altitudes in the Mediterranean (Muster & Thaler, 2004). It is very similar in general appearance to *P. aureolus* and *P. cespitum*, but the abdomen is usually marked with a midline band of white hairs which tapers to the spinnerets (Roberts, 1995). In contrast to the opinion of Braun (1965), colouration is highly variable. Specimens with unicoloured legs and without dorsal abdominal pattern occur both in the Mediterranean region and in central Europe (Muster & Thaler, 2004). In the most specimens from the Alps and Saxony, the RTA is pointing to a single tip, whereas it is bifid in Greek, and obviously in some British specimens. The RTA of our male specimens is pointing to a single tip, unlike specimens from Britain examined by Roberts (1995: 172, fig. ♂) and Muster & Thaler (2004: 310, fig. 9).

Philodromus pinetorum Muster, 2009 (Fig. 8)
Material examined: 2♂♂, near to Sadağ Canyon, (480 m), 08.03.2007.
This species was found on *Pinus nigra*.

Description: Male: Total body length 3.2-3.5 mm. Blackish brown-coloured. Carapace is rather bigger than abdomen, wider than long, often with hairs. A trapezium formed by four median eyes is in front of carapace. Distance between anterior median eyes shorter than distance between posterior median eyes. Median eyes are closer to lateral eyes than to each other. Anterior median eyes and anterior lateral eyes are equal in size. Posterior median eyes are smallest. Posterior lateral eyes > anterior eyes > posterior median eyes. There are a few spines on the anterior of the carapace. Sternum is brown, longer than wide, with dense short hairs. Abdomen is blackish brown, smaller than carapace, longer than wide, with short hairs; its ventral side is dark brown with short hairs. Legs have the same colour of the body; tarsi and metatarsi of first and second legs has more hairs than the other segments of legs; legs I, II are longer than legs III and IV; all legs have rare spines. Embolus is originating at 10 o'clock and conspicuously thick, widened from originating to its half but suddenly narrowing at about 12 o'clock, then becoming filiform with a thin diameter and its end is at about 3 o'clock; tibia with ventral, intermediate and retrolateral apophyses; VTA slim, curved; DTA triangular shaped; RTA bifid; sperm duct asymmetric.
World Distribution: France to Turkey (Platnick, 2010).

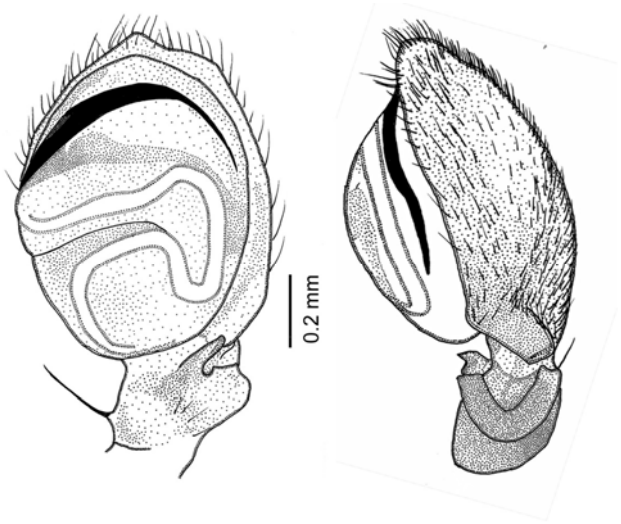


Fig. 8. *Philodromus pinetorum* Muster, 2009
Male, left palpus: (a) ventral view, (b) lateral view.

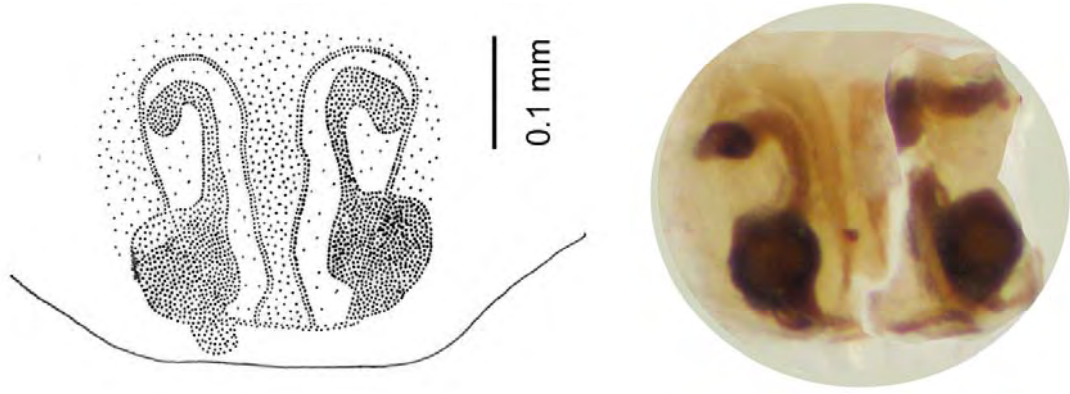
Remarks: As pointed out by Muster (2009), the identity of this species has repeatedly been mistaken; tube 662 from the Simon collection labelled '*Ph. poecilus* Th. Suecia (Th.) Rossia (Wagner) Gallia' contained 27 adult specimens of *P. pinetorum* and five juveniles. Also the figures *P. poecilus* in Simon (1932) undoubtedly belong to this recently described species. In Turkey, *P. pinetorum* appears to be a most common species (Muster, 2009).

Philodromus rufus Walckenaer, 1826 (Figs. 9, 10)
Material examined: 1♀, Saadet, (590 m), 02.07.2007.
This species was found on *Silene compacta*.

Description: Female: Total body length 3.2 mm. Colouration yellow. Carapace is wide and rounded. Eyes are situated on separate tubercles. Row of eyes except the posterior median eyes is semi-circular shaped as seen from the anterior of the carapace. Anterior

median eyes are a little closer to anterior lateral eyes than to each other. Lateral eyes a little bigger than median eyes. Labium and sternum are as long as wide; sternum is flat. Abdomen is longer than wide. Two anterior pairs of legs are quite long; metatarsi and tibiae of all legs rarely have spines. Epigyne is distinctive. Receptaculae are not close to each other.

World Distribution: Holarctic (Platnick, 2010).



9 **10**

Fig. 9. *Philodromus rufus* Walckenaer, 1826. Female.
9. Epigynum, ventral view. 10. Vulvae, dorsal view.

Remarks: As pointed out by Dondale (1972), the name of *Philodromus* sp. near *rufus* depends on the identity of *P. clarkii* Blachwall, 1850 and on that of *P. pellax* Herman, 1879 (Segers, 1989). It further depends on the identity of *P. rubidus* Simon, 1870 and *P. albidus* Kulczyński, 1911, two species for which the original descriptions state that they are very close to *P. rufus* (Segers, 1989). Females of *P. albidus* are distinguished by the form of the spermathecal organ which is elongated and projects laterally in *P. rufus* and is curled over in *P. albidus* (Segers, 1989: figs. 5-7). Laboratory breeding between European and North American lots of *Philodromus rufus* is demonstrated. On this base, *P. rufus* of Western Europe is designated *P. rufus rufus*, which differs from the North American subspecies in colour and in the time interval between successive egg sacs in ovipositing females (Dondale, 1972).

Genus *Thanatus* C. L. Koch, 1837

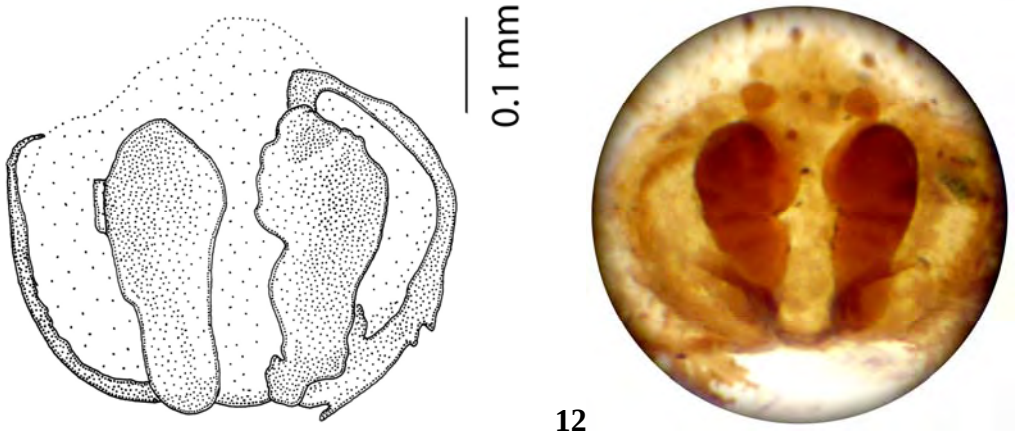
Spiders with oval to elongate body. Carapace is about as long as wide, rounded at sides and slightly narrowing in front. Eyes are small, approximately of same size; eyes of anterior row distinctly closer together than eyes of posterior row; posterior row of eyes approximately equally spaced, sometimes posterior-median eyes closer to each other than to posterior-lateral eyes; median quadrangle of eyes distinctly longer than wide. Legs are relatively long, fourth pair almost longest; distal joints armed ventrally with scopulae; claws with distinct denticles and tufts of spatulate bristles beneath. Abdomen is oval, rounded in front and slightly tapering posteriorly; dorsum with dark, median, rhomboid or lanceolate marking (Levy, 1977).

Thanatus atratus Simon, 1875 (Figs. 11-13)

Material examined: 3♂♂, Sultaniye, (835 m), 03.06.2006; 1♀, near to Osmaniye, (520 m), 13.07.2006.

This species was found under stones.

Description: Female: Total body length 6.0 mm. Colouration brown. Carapace is a little longer than wide; the middle of the carapace has a dark brown thick longitudinal stripe, also the sides of carapace with dark brown bands. Anterior median eyes are closer to anterior lateral eyes than to each other. Distance between posterior median eyes is approximately equal to that of posterior lateral eyes. Anterior median eyes are closer to each other than to posterior median eyes. Anterior median eyes smallest. Lateral eyes > median eyes. Labium is approximately as long as wide. Sternum is rounded with rare hairs. Abdomen is longer than wide, also slightly tapering, with dark brown median rhomboid dorsal marking; its ventral side with short hairs. There are dense hairs on all the body and legs. Legs are brown. Epigyne is distinctive and wide. Receptaculae are close to each other.
Male: Total body length 5.0-5.6 mm. Colouration brown. The centre of the carapace is light in colour, with a longitudinal dark brown folium. The sides of the carapace are dark brown. Anterior median eyes smallest. Lateral eyes > median eyes. Anterior median eyes are closer to anterior lateral eyes than to each other. Distance between posterior median eyes is approximately equal to posterior lateral eyes. Distance between anterior median eyes is shorter than distance between posterior lateral eyes. Carapace and labium are approximately as long as wide. Sternum is brown, rounded with thin hairs. Abdomen is longer than wide, with a dark brown, median, rhomboid dorsal marking; its ventral side is brown, with thin hairs. All the body without strong hairs. Palpus with dense hairs on tarsus and metatarsus; embolus short, and its tip is curved; VTA short, indefinite; RTA triangle-shaped; aSDL and dSDL are parallel; cymbium is narrow.
World Distribution: Palaearctic (Platnick, 2010).



Figs. 11-12. *Thanatus atratus* Simon, 1875. Female.
11. Epigynum, ventral view. 12. Vulvae, dorsal view.

Remarks: The body size of our specimens is similar to those of North Asia. The male specimens figured as *T. atratus* from North Asia by Logunov (1996: fig. 191) and eastern Alps by Muster & Thaler (2003: figs. 3, 6) are similar, regarding the embolus and sperm duct. VTA and RTA are different from those of North Asia, but are similar to those of eastern Alps whereas RTA is thicker. Female figured as *T. atratus* from eastern Alps by Muster & Thaler (2003: figs. 14, 15) is similar. *T. atratus* is most closely related to *T. vulgaris* and *T. tuvinensis*; the most reliable distinguishing characters of males are the shape and size of the tegular apophysis, the shape of the embolus. Females differ in having the more narrow and not depressed central division of epigyne in comparison with that of *T. vulgaris* and also in shape of the bursa copulatrix (Logunov, 1996).

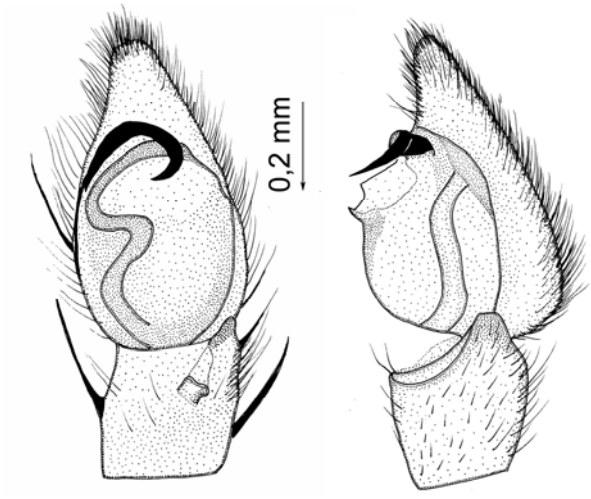


Fig. 13. *Thanatus atratus* Simon, 1875. Male left palpus: (a) ventral view, (b) lateral view.

Thanatus imbecillus L. Koch, 1878 (Fig. 14)
Material examined: 2♂♂, Alpin zone, (2.200 m), 05.07.2009.
This species was found under stones.
Description: Male: Total body length 12.0 mm. Carapace dark brown, like black, and approximately as long as wide. Median eyes are a little smaller than lateral eyes. Distance between anterior median eyes is shorter than distance between posterior median eyes, as trapezium is formed by four median eyes. Anterior median eyes are closer to anterior lateral eyes than to each other. Posterior median eyes are closer to lateral eyes than to each other. Sternum is reddish brown, shield-like, with rare hairs. Sternum is slightly longer than wide. Labium is brown, wider than long. The dorsum of the abdomen is reddish-brown, with a blackish-brown, rhomboid-shaped folium; its ventral side has three yellowish brown longitudinal lines. Femora, trochanters, and coxae are blackish brown but other segments of legs are brown. Body is without strong hairs. Embolus is slim, its distal end is not curved; VTA trapezoid-shaped; aSDL and dSDL are parallel to each other.
World Distribution: Bulgaria to Central Asia (Platnick, 2010).

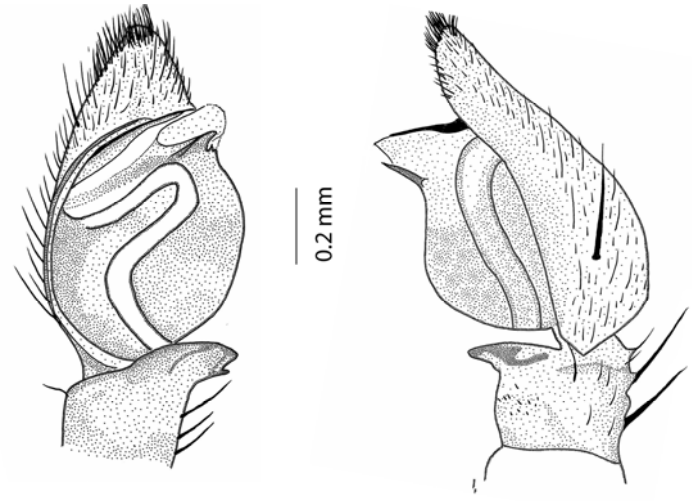


Fig. 14. *Thanatus imbecillus* L. Koch, 1878
Male left palpus: (a) ventral view, (b) lateral view.

Remarks: As pointed out by Lyakhov (1999), this is a rare species related to *T. meronensis* (Levy, 1977: figs 55-58), which has so far been reported from Balkan Peninsula, the Caucasus and Middle Asia. As pointed out by Logunov & Huseynov (2008), it has been suggested (Kovblyuk *et al.*, 2008: 26) that the records of *T. meronensis* from Israel could belong to *T. imbecillus*. Both species are close but distinct: viz., the male palp of *T. imbecillus* is twice as large as that of *T. meronensis* (figs. 19, 23), its tegular apophysis is longer and the tibial apophysis is stronger and of different shape (figs. 20, 24) (Logunov & Huseynov, 2008). The male holotype of *T. meronensis* is clearly distinct from the males of true *T. imbecillus*, suggesting a separated taxonomic status of the two species (Logunov & Huseynov, 2008). It is one of the commonest species of the Turkish philodromids, displaying a high variation in body size (males from one catch may be twice as large as those from another) and colour (Logunov & Kunt, 2010). The palp figured as *T. imbecillus* from Azerbaijan by Logunov & Huseynov (2008: fig. 19) is similar to our specimens.

Annotated checklist of the Philodromidae of Turkey

The present checklist of the Philodromid species of Turkey is mainly based on the data included in "The Checklist of the Spiders of Turkey" Version 10.10 (Bayram *et al.*, 2010); Topçu *et al.*, 2005; Demir, 2008; Logunov & Huseynov, 2008; Logunov & Kunt, 2010.

No.	Species	Distribution
1	***Philodromus albidus*** Kulczyński, 1911	Southeast Anatolia Region
2	***Philodromus aureolus*** (Clerck, 1757)	Mediterranean Region
3	***Philodromus azcursor*** Logunov & Huseynov, 2008	East Black Sea Region Mediterranean Region
4	***Philodromus bistigma*** Simon, 1870	Aegean Region
5	***Philodromus bonneti*** Karol, 1968	Marmara Region
6	***Philodromus bucaensis*** (Logunov & Kunt, 2010)	Aegean Region
7	***Philodromus buchari*** Kubcová, 2004	Central Anatolia Region
8	***Philodromus cespitum*** (Walckenaer, 1802)	Middle Black Sea Region Central Anatolia Region East Anatolia Region Marmara Region Mediterranean Region
9	***Philodromus collinus*** C.L.Koch, 1835	Marmara Region Mediterranean Region East Black Sea Region
10	***Philodromus dispar*** Walckenaer, 1826	East Black Sea Region West Black Sea Region Central Anatolia Region Marmara Region Mediterranean Region
11	***Philodromus fallax*** Sundevall, 1833	Central Anatolia Region
12	***Philodromus femurostriatus*** Muster, 2009	Aegean Region Mediterranean Region
13	***Philodromus fuscolimbatus*** Lucas, 1846	Marmara Region
14	***Philodromus glaucinus*** Simon, 1870	Marmara Region
15	***Philodromus histrio*** (Latreille, 1819)	East Anatolia Region Central Anatolia Region

16	***Philodromus krausi*** Muster & Thaler, 2004	Aegean Region, Middle Black Sea Region
17	***Philodromus lividus*** Simon, 1875	Marmara Region
18	***Philodromus longipalpis*** Simon, 1870	Marmara Region
19	***Philodromus lunatus*** Muster & Thaler, 2004	Aegean Region Central Anatolia Region Mediterranean Region
20	***Philodromus margaritatus*** (Clerck, 1757)	Southeast Anatolia Region
21	***Philodromus medius*** O. Pickard-Cambridge, 1872	Mediterranean Region
22	***Philodromus pinetorum*** Muster, 2009	Aegean Region Central Anatolia Region Marmara Region Mediterranean Region
23	***Philodromus poecilus*** (Thorell, 1872)	Central Anatolia Region
24	***Philodromus pulchellus*** Lucas, 1846	Aegean Region Marmara Region Mediterranean Region
25	***Philodromus rufus*** Walckenaer, 1826	Marmara Region Mediterranean Region Southeast Anatolia Region
26	***Thanatus atratus*** Simon, 1875	Central Anatolia Region Mediterranean Region Southeast Anatolia Region
27	***Thanatus formicinus*** (Clerck, 1757)	Aegean Region Central Anatolia Region East Anatolia Region Mediterranean Region Southeast Anatolia Region
28	***Thanatus imbecillus*** L. Koch, 1878	Black Sea Region Central Anatolia Region Southeast Anatolia Region Mediterranean Region
29	***Thanatus lineatipes*** Simon, 1870	Aegean Region
30	***Thanatus nitidus*** Logunov & Kunt, 2010	Southeast Anatolia Region
31	***Thanatus oblongiusculus*** (Lucas, 1846)	Central Anatolia Region Mediterranean Region Southeast Anatolia Region
32	***Thanatus okayi*** Karol, 1966	Marmara Region
33	***Thanatus pictus*** L. Koch, 1881	Aegean Region Central Anatolia Region Southeast Anatolia Region
34	***Thanatus sabulosus*** (Menge, 1875)	Middle Black Sea Region
35	***Thanatus striatus*** C.L.Koch, 1845	Aegean Region Central Anatolia Region East Anatolia Region Mediterranean Region
36	***Thanatus vulgaris*** Simon, 1870	Aegean Region Central Anatolia Region East Anatolia Region Marmara Region Mediterranean Region Southeast Anatolia Region

37	***Tibellus macellus*** Simon 1875	Aegean Region Central Anatolia Region Marmara Region Mediterranean Region Southeast Anatolia Region
38	***Tibellus oblongus*** (Walckenaer, 1802)	Aegean Region Central Anatolia Region East Anatolia Region Mediterranean Region Southeast Anatolia Region

Acknowledgments

Sincere thanks are extended to Dr. Christoph Muster, Institute of Biology II, University of Leipzig, Germany and Dr. Dmitry V. Logunov, The Manchester Museum, The University of Manchester, UK.

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Notes on Spiders of Africa - I

Hisham K. El-Hennawy
41, El-Manteqa El-Rabia St., Heliopolis, Cairo 11341, Egypt
E-mail: el_hennawy@hotmail.com

Abstract

It is a preliminary step in the way of assessment of spiders of Africa. How many spider species are recorded from Africa? what is their proportion to the world's described species? What is the difference between North African and sub-Saharan spiders?

Keywords: Spiders, Araneae, Africa.

Introduction

Nowadays, "The world spider catalog" (Platnick, 2010) is the most important source of information in the field of araneology. The present work is extracted from this catalogue. It is a preliminary step in the way of assessment of spiders of Africa. How many spider species are recorded from Africa? what is their proportion to the world's described species? What is the difference between North African and sub-Saharan spiders?

Canary islands' spiders are included with spiders recorded from all other African islands. Spiders of Sinai (Egypt) are also included in the study.

The first part is a catalogue of genera recorded from Africa. The families are alphabetically arranged. Each genus is followed by the number of species recorded from Africa. Each family is followed by the sum of genera and species. N = North African spiders and S = sub-Saharan spiders.

The second part includes comments in tables of: a summary of the catalogue, proportions of African species to the world species and comparison between North African and sub-Saharan spiders.

SPIDERS OF AFRICA – FAMILIES AND GENERA

Family **AGELENIDAE** C. L. Koch, 1837 11 genera, 72 species [28 N, 44 S]

Agelescape 1 N	**Lycosoides** 9 N	**Tegenaria** 5 N
Agelena 38 [7 N, 31 S]	**Benoitia** 8 [2 N, 6 S]	**Malthonica** 4 [3 N, 1 S]
Textrix 2 [1 N, 1 S]	**Kidugua** 1 S	**Mistaria** 2 S
Neotegenaria 1 S	**Olorunia** 1 S	

Family **AMAUROBIIDAE** Thorell, 1870b 8 genera, 17 species [9 N, 8 S]

Amaurobius 6 N
Arctobius 1 N
Callobius 1 N
Coelotes 1 N
Chresiona 3 S
Macrobunus 1 S
Obatala 1 S
Pseudauximus 3 S

Family **AMMOXENIDAE** Simon, 1893a 2 genera, 13 species [13 S]

Ammoxenus 6 S
Rastellus 7 S

Family **ANAPIDAE** Simon, 1895a 6 genera, 12 species [1 N, 11 S]

Zangherella 1 N
Crozetulus 3 S
Dippenaaria 1 S
Forsteriola 2 S
Metanapis 3 S
Pseudanapis 2 S

Family **ANYPHAENIDAE** Bertkau, 1878 1 genus, 1 species [1 S]

Amaurobioides 1 S

Family **ARANEIDAE** Clerck, 1757 73 genera, 388 species [49 N, 339 S]

Aculepeira 1 N
Araniella 1 N
Gibbaranea 2 N
Leviellus 1 N
Nuctenea 2 N
Poecilarcys 1 N
Siwa 2 N
Zygiella 2 N
Agalenatea 2 [1 N, 1 S]
Araneus 86 [8 N, 78 S]
Argiope 13 [3 N, 10 S]
Cyclosa 16 [5 N, 11 S]
Cyrtarachne 10 [1 N, 9 S]
Cyrtophora 7 [1 N, 6 S]
Gasteracantha 21 [1 N, 20 S]
Gea 4 [1 N, 3 S]
Hypsosinga 3 [1 N, 2 S]
Larinia 15 [2 N, 13 S]
Larinioides 3 [2 N, 1 S]
Nemoscolus 15 [3 N, 12 S]
Neoscona 28 [2 N, 26 S]
Pararaneus 5 [1 N, 4 S]
Prasonica 7 [1 N, 6 S]
Singa 8 [4 N, 4 S]
Acantharachne 8 S
Acrosomoides 3 S
Acusilas 1 S
Aethriscus 2 S
Aethrodiscus 1 S
Aetrocantha 1 S
Afracantha 1 S
Arachnura 1 S
Aranoethra 3 S
Artonis 1 S
Augusta 1 S
Caerostris 9 S
Chorizopes 2 S
Cladomelea 4 S
Coelossia 2 S
Cyphalonotus 3 S
Eriophora 1 S
Eriovixia 3 S
Exechocentrus 1 S
Faradja 1 S
Gastroxya 4 S
Hypsacantha 1 S
Ideocaira 2 S
Isoxya 16 S
Kilima 3 S
Lipocrea 1 S
Madacantha 1 S
Mahembea 1 S
Megaraneus 1 S
Nemosinga 3 S
Nemospiza 1 S
Paralarinia 4 S
Paraplectana 6 S
Parmatergus 3 S
Pasilobus 5 S
Pherenice 1 S
Poltys 10 S
Prasonicella 2 S
Pronous 1 S
Pseudartonis 4 S
Pseudopsyllo 1 S
Psyllo 1 S
Pycnacantha 4 S
Sedasta 1 S
Singafrotypa 3 S
Thelacantha 1 S
Togacantha 1 S
Umbonata 1 S
Ursa 1 S

Family **ARCHAEIDAE** C. L. Koch & Berendt, 1854 2 genera, 32 species [32 S]

Afrarchaea 13 S
Eriauchenius 19 S

Family **ATYPIDAE** Thorell, 1870b 1 genus, 1 species [1 S]

Calommata 1 S

Family **BARYCHELIDAE** Simon, 1889m 9 genera, 39 species [39 S]

Ammonius 1 S
Cyphonisia 13 S
Eubrachycercus 1 S
Idioctis 1 S
Pisenor 9 S
Sason 1 S
Sipalolasma 4 S
Tigidia 8 S
Zophoryctes 1 S

Family **CAPONIIDAE** Simon, 1890a 2 genera, 13 species [13 S]

Caponia 11 S **Diploglena** 2 S

Family **CHUMMIDAE** Jocqué, 2001 1 genus, 2 species [2 S]

Chumma 2 S

Family **CITHAERONIDAE** Simon, 1893a 1 genus, 4 species [1 N, 3 S]

Cithaeron 4 [1 N, 3 S]

Family **CLUBIONIDAE** Wagner, 1887 3 genera, 63 species [8 N, 55 S]

Carteroniella 1 S **Carteronius** 4 S **Clubiona** 58 [8 N, 50 S]

Family **CORINNIDAE** Karsch, 1880c 34 genera, 224 species [14 N, 210 S]

Castanilla 2 N
Castianeira 23 [2 N, 21 S]
Apochinomma 1 S
Brachyphaea 8 S
Copa 8 S
Fuchiba 6 S
Lessertina 1 S
Merenius 10 S
Orthobula 6 S
Poachelas 3 S
Pseudocorinna 3 S
Vendaphaea 1 S
Liophrurillus 1 N
Graptartia 4 [1 N, 3 S]
Arushina 1 S
Cambalida 3 S
Corinna 10 S
Fuchibotulus 2 S
Mandaneta 1 S
Messapus 2 S
Paccius 8 S
Procopius 11 S
Spinotrachelas 1 S
Scorteccia 1 N
Trachelas 14 [7 N, 7 S]
Austrophaea 1 S
Cetonana 6 S
Corinnomma 3 S
Hortipes 69 S
Medmassa 1 S
Myrmecotypus 1 S
Planochelas 3 S
Pronophaea 3 S
Thysanina 6 S

Family **CTENIDAE** Keyserling, 1877a 11 genera, 141 species [1 N, 140 S]

Anahita 14 [1 N, 13 S]
Caloctenus 1 S
Petaloctenus 4 S
Viridasius 1 S
Africactenus 20 S
Ctenus 80 S
Thoriosa 4 S
Vulsor 7 S
Apolania 1 S
Mahafalytenus 7 S
Trogloctenus 2 S

Family **CTENIZIDAE** Thorell, 1887 3 genera, 47 species [2 N, 45 S]

Ummidia 2 N **Conothele** 1 S **Stasimopus** 44 S

Family **CYATHOLIPIDAE** Simon, 1894a 14 genera, 44 species [44 S]

Alaranea 4 S
Ilisoa 3 S
Pembatatu 3 S
Ulwembua 7 S
Vazaha 1 S
Buibui 5 S
Isicabu 5 S
Scharffia 4 S
Umwani 2 S
Wanzia 1 S
Cyatholipus 6 S
Kubwa 1 S
Ubacisi 1 S
Uvik 1 S

Family **CYRTAUCHENIIDAE** Simon, 1889m 5 genera, 73 species [14 N, 59 S]

Cyrtauchenius 14 N
Bolostromus 1 S
Acontius 9 S
Homostola 5 S
Ancylotrypa 44 S

Family **DEINOPIDAE** C. L. Koch, 1850 3 genera, 14 species [14 S]

Avellopsis 1 S **Deinopis** 10 S **Menneus** 3 S

Family **DESIDAE** Pocock, 1895b 1 genus, 3 species [3 S]

Desis 3 S

Family **DICTYNIDAE** O. P.-Cambridge, 1871c 16 genera, 51 species [37 N, 14 S]

Ajmonia 3 N
Altella 4 N
Chaerea 1 N
Devade 2 N
Emblyna 1 N
Lathys 10 N
Scotolathys 1 N
Archaeodictyna 4 [3 N, 1 S]
Dictyna 9 [6 N, 3 S]
Mizaga 2 [1 N, 1 S]
Nigma 7 [5 N, 2 S]
Anaxibia 2 S
Helenactyna 2 S
Hoplolathys 1 S
Mashimo 1 S
Shango 1 S

Family **DIPLURIDAE** Simon, 1889m 4 genera, 12 species [12 S]

Allothele 5 S
Euagrus 1 S
Lathrothele 4 S
Thelechoris 2 S

Family **DRYMUSIDAE** Simon, 1893a 1 genus, 3 species [3 S]

Drymusa 3 S

Family **DYSDERIDAE** C. L. Koch, 1837b 4 genera, 133 species [131 N, 2 S]

Harpactea 36 N
Rhode 3 N
Stalitochara 1 N
Dysdera 93 [91 N, 2 S]

Family **ERESIDAE** C. L. Koch, 1850 10 genera, 75 species [13 N, 62 S]

Adonea 1 N
Eresus 10 N
Dorceus 5 [4 N, 1 S]
Stegodyphus 14 [3 N, 11 S]
Dresserus 24 S
Gandanameno 5 S
Paradonea 4 S
Penestomus 2 S
Seothyra 13 S
Wajane 2 S

Family **FILISTATIDAE** Ausserer, 1867 5 genera, 18 species [10 N, 8 S]

Filistata 7 N
Sahastata 1 N
Pritha 5 [2 N, 3 S]
Afrofilistata 1 S
Andoharano 4 S

Family **GALLIENIELLIDAE** Millot, 1947a 5 genera, 29 species [29 S]

Austrachelas 9 S
Drassodella 7 S
Gallieniella 4 S
Legendrena 7 S
Toxoniella 2 S

Family **GNAPHOSIDAE** Pocock, 1898c 49 genera, 585 species [177 N, 408 S]

Haplodrassus 8 N
Leptodrassex 2 N
Leptopilos 2 N
Pseudodrassus 2 N
Pterotrichina 1 N
Scotognapha 13 N
Talanites 3 N
Zelominor 1 N
Anagraphis 3 [1 N, 2 S]
Aphantaulax 11 [3 N, 8 S]
Berlandina 10 [4 N, 6 S]
Drassodes 49 [20 N, 29 S]
Echemus 6 [3 N, 3 S]
Gnaphosa 4 [3 N, 1 S]
Heser 1 NS
Leptodrassus 6 [1 N, 5 S]
Megamyrmaekion 7 [3 N, 4 S]
Micaria 12 [9 N, 3 S]
Minosia 10 [3 N, 7 S]
Minosiella 3 [2 N, 1 S]
Nomisia 23 [8 N, 15 S]
Odontodrassus 4 [1 N, 3 S]
Poecilochroa 12 [3 N, 9 S]
Pterotricha 20 [13 N, 7 S]
Scotophaeus 31 [10 N, 21 S]
Setaphis 28 [11 N, 17 S]
Synaphosus 7 [4 N, 3 S]
Trachyzelotes 9 [7 N, 2 S]
Urozelotes 2 [1 N, 1 S]
Zelotes 130 [33 N, 97 S]
Amusia 2 S
Aneplasa 8 S
Asemesthes 26 S
Australoechemus 2 S
Benoitodes 2 S
Camillina 13 S
Diaphractus 3 S
Echemella 6 S
Eilica 4 S
Ladissa 2 S
Latonigena 1 S
Microdrassus 1 S
Smionia 2 S
Titus 1 S
Trephopoda 6 S
Trichothyse 3 S
Xerophaeus 42 S
Zelotibia 22 S
Zelowan 18 S

Family **HAHNIIDAE** Bertkau, 1878 2 genera, 33 species [5 N, 28 S]

Hahnia 32 [5 N, 27 S] **Alistra** 1 S

Family **HERSILIIDAE** Thorell, 1870b 7 genera, 47 species [4 N, 43 S]

Tama 1 N **Hersilia** 31 [1 N, 30 S] **Hersiliola** 4 [2 N, 2 S]
Murricia 1 S **Neotama** 1 S **Prima** 1 S
Tyrotama 8 S

Family **HEXATHELIDAE** Simon, 1892a 1 genus, 5 species [1 N, 4 S]

Macrothele 5 [1 N, 4 S]

Family **IDIOPIDAE** Simon, 1889m 10 genera, 102 species [2 N, 100 S]

Titanidiops 3 [2 N, 1 S] **Ctenolophus** 7 S **Galeosoma** 15 S
Genysa 3 S **Gorgyrella** 5 S **Heligmomerus** 6 S
Hiboka 1 S **Idiops** 58 S **Scalidognathus** 1 S
Segregara 3 S

Family **LEPTONETIDAE** Simon, 1890a 2 genera, 3 species [3 N]

Leptoneta 1 N **Paraleptoneta** 2 N

Family **LINYPHIIDAE** Blackwall, 1859b 121 genera, 627 species [216 N, 411 S]

Acartauchenius 8 N **Alioranus** 1 N **Bolyphantes** 1 N
Brachycerasphora 4 N **Canariellanum** 4 N **Canariphantes** 5 N
Centromerus 11 N **Cherserigone** 1 N **Didectoprocnemis** 1 N
Diplocephalus 4 N **Entelecara** 2 N **Erigonoplus** 1 N
Frontiphantes 1 N **Gnathonarium** 1 N **Hybocoptus** 2 N
Lessertia 2 N **Maso** 1 N **Mecopisthes** 4 N
Megalepthyphantes 3 N **Mermessus** 2 N **Metopobactrus** 1 N
Minicia 4 N **Ostearius** 1 N **Ouedia** 1 N
Palliduphantes 11 N **Parapelecopsis** 1 N **Pecado** 1 N
Porrhomma 1 N **Scotargus** 5 N **Silometopus** 1 N
Sintula 5 N **Tapinocyba** 1 N **Thaumatoncus** 2 N
Theonina 2 N **Troglohyphantes** 5 N **Typhochrestus** 15 N
Agyneta 2 [1 N, 1 S] **Araeoncus** 14 [3 N, 11 S] **Bathyphantes** 5 [1 N, 4 S]
Ceratinopsis 13 [2 N, 11 S] **Erigone** 8 [1 N, 7 S] **Frontinellina** 2 [1 N, 1 S]
Gonatium 3 [2 N, 1 S] **Gongylidiellum** 2 [1 N, 1 S] **Improphantes** 6 [4 N, 2 S]
Lepthyphantes 59 [17 N, 42 S] **Meioneta** 22 [2 N, 20 S] **Microlinyphia** 6 [1 N, 5 S]
Neriene 10 [1 N, 9 S] **Oedothorax** 12 [2 N, 10 S] **Pelecopsis** 53 [21 N, 32 S]
Prinerigone 3 [2 N, 1 S] **Savignia** 2 [1 N, 1 S] **Tenuiphantes** 9 [8 N, 1 S]
Trichoncus 4 [2 N, 2 S] **Trichopterna** 5 [1 N, 4 S] **Walckenaeria** 44 [26 N, 18 S]
Aberdaria 1 S **Afribactrus** 1 S **Afromynoglenes** 1 S
Afroneta 27 S **Asthenargellus** 2 S **Asthenargus** 7 S
Bursellia 9 S **Callitrichia** 23 S **Cameroneta** 1 S
Ceratocyba 1 S **Chenisides** 2 S **Comorella** 1 S
Deelemania 4 S **Donacochara** 1 S **Enguterothrix** 3 S
Erigonops 1 S **Gibbafroneta** 1 S **Haplomaro** 1 S
Helsdingenia 2 S **Holma** 1 S **Holmelgonia** 14 S
Hypomma 1 S **Ibadana** 1 S **Koinothrix** 1 S
Labullula 1 S **Laminafroneta** 2 S **Limoneta** 2 S
Linyphia 3 S **Locketidium** 3 S **Lucrinus** 1 S
Machadocara 2 S **Mecynidis** 8 S **Metaleptyphantes** 16 S
Microbathyphantes 2 S **Microctenonyx** 1 S **Microcyba** 18 S
Millidgea 3 S **Mioxena** 2 S **Moreiraxena** 1 S
Murphydium 1 S **Napometa** 2 S **Neoeburnella** 1 S

Notioscopus 1 S
Ophrynia 13 S
Oreocyba 2 S
Pachydelphus 4 S
Proelauna 1 S
Pseudomaso 1 S
Pseudomicrocentria 1 S
Simplicistilus 1 S
Strongyliceps 2 S
Syedra 1 S
Thapsagus 1 S
Theoa 1 S
Thyreobaeus 1 S
Tmeticides 1 S
Toschia 9 S
Trachyneta 2 S
Troxochrus 1 S
Turinyphia 1 S
Tybaertiella 3 S
Typhistes 2 S
Ulugurella 1 S
Venia 1 S

Family **LIOCRANIDAE** Simon, 1897 12 genera, 42 species [21 N, 21 S]

Agroeca 3 N
Apostenus 6 N
Cybaeodes 3 N
Scotina 1 N
Agraecina 4 [3 N, 1 S]
Mesiotelus 6 [5 N, 1 S]
Andromma 5 S
Argistes 1 S
Coryssiphus 3 S
Donuea 1 S
Liocranum 2 S
Rhaeboctesis 7 S

Family **LYCOSIDAE** Sundevall, 1833b 52 genera, 632 species [140 N, 492 S]

Alopecosella 1 N
Cynosa 1 N
Orthocosa 1 N
Phonophilus 1 N
Wadicosa 1 N
Allocosa 71 [17 N, 54 S]
Alopecosa 23 [19 N, 4 S]
Arctosa 74 [18 N, 56 S]
Crocodilosa 2 [1 N, 1 S]
Evippa 9 [4 N, 5 S]
Geolycosa 30 [2 N, 28 S]
Hippasa 13 [3 N, 10 S]
Hogna 113 [22 N, 91 S]
Hyaenosa 3 [1 N, 2 S]
Lycosa 33 [13 N, 20 S]
Megarctosa 3 [1 N, 2 S]
Ocyale 7 [1 N, 6 S]
Orinocosa 4 [1 N, 3 S]
Pardosa [18 N, 68 S]
Pirata 18 [7 N, 11 S]
Trabea 12 [1 N, 11 S]
Trochosa 29 [6 N, 23 S]
Amblyothele 8 S
Anomalomma 1 S
Arctosomma 1 S
Artoria 3 S
Artoriellula 1 S
Auloniella 1 S
Brevilabus 2 S
Bristowiella 2 S
Caporiaccosa 1 S
Dejerosa 1 S
Dolocosa 1 S
Edenticosa 1 S
Evippomma 4 S
Foveosa 5 S
Hognoides 2 S
Loculla 4 S
Malimbosa 1 S
Minicosa 1 S
Pardosella 5 S
Passiena 2 S
Proevippa 11 S
Pseudevippa 1 S
Pterartoria 4 S
Pterartoriola 4 S
Schizocosa 12 S
Tricassa 2 S
Trochosippa 7 S
Trochosula 1 S
Xerolycosa 2 S
Zenonina 6 S

Family **MICROSTIGMATIDAE** Roewer, 1942a 1 genus, 6 species [6 S]

Microstigmata 6 S

Family **MIGIDAE** Simon, 1889m 5 genera, 47 species [47 S]

Micromesomma 1 S
Moggridgea 30 S
Paramigas 11 S
Poecilomigas 3 S
Thyropoeus 2 S

Family **MIMETIDAE** Simon, 1881a 4 genera, 21 species [5 N, 16 S]

Ero 9 [3 N, 6 S]
Mimetus 10 [2 N, 8 S]
Kratochvilia 1 S
Reo 1 S

Family **MITURGIDAE** Simon, 1886g 5 genera, 80 species [14 N, 66 S]

Cheiracanthium 42 [13 N, 29 S]
Cheiramiona 27 [1 N, 26 S]
Parapostenus 1 S
Syrisca 7 S
Tecution 3 S

Family **MYSMENIDAE** Petrunkevitch, 1928 9 genera, 12 species [3 N, 9 S]

Calodipoena 1 N
Trogloneta 2 N
Anjouanella 1 S
Isela 1 S
Kilifina 1 S
Leviola 1 S
Microdipoena 3 S
Mysmena 1 S
Mysmenella 1 S

Family **NEMESIIDAE** Simon, 1889m 6 genera, 63 species [10 N, 53 S]

Nemesia 11 [10 N, 1 S] **Entypesa** 3 S **Hermacha** 16 S
Lepthercus 2 S **Pionothele** 1 S **Spiroctenus** 30 S

Family **NEPHILIDAE** Simon, 1894a 3 genera, 27 species [27 S]

Clitaetra 5 S **Nephila** 20 S **Nephilengys** 2 S

Family **NESTICIDAE** Simon, 1894a 3 genera, 8 species [1 N, 7 S]

Canarionesticus 1 N **Nesticella** 5 S **Nesticus** 2 S

Family **OCHYROCERATIDAE** Fage, 1912 7 genera, 21 species [21 S]

Dundocera 3 S **Euso** 1 S **Lundacera** 1 S
Ouette 1 S **Roche** 1 S **Speocera** 7 S
Theotima 7 S

Family **OECOBIIDAE** Blackwall, 1862a 5 genera, 53 species [38 N, 15 S]

Oecobius 41 [35 N, 6 S] **Uroctea** 8 [3 N, 5 S] **Paroecobius** 2 S
Urocteana 1 S **Uroecobius** 1 S

Family **OONOPIDAE** Simon, 1890a 36 genera, 113 species [20 N, 93 S]

Ovobulbus 1 N **Dysderina** 7 [2 N, 5 S] **Gamasomorpha** 10 [1 N, 9 S]
Oonopinus 3 [1 N, 2 S] **Oonops** 8 [3 N, 5 S] **Opopaea** 17 [3 N, 14 S]
Orchestina 9 [4 N, 5 S] **Silhouettella** 2 [1 N, 1 S] **Sulsula** 2 [1 N, 1 S]
Telchius 3 [2 N, 1 S] **Xestaspis** 5 [1 N, 4 S] **Anophthalmoonops** 1 S
Antoonops 4 S **Aridella** 1 S **Australoonops** 1 S
Blanioonops 1 S **Brignolia** 1 S **Caecoonops** 2 S
Calculus 1 S **Cousinea** 1 S **Diblemma** 1 S
Hypnoonops 1 S **Ischnothyrella** 1 S **Ischnothyreus** 2 S
Kijabe 2 S **Lionneta** 8 S **Lisna** 1 S
Nephrochirus 1 S **Patri** 1 S **Pelicinus** 1 S
Prida 1 S **Pseudoscaphiella** 1 S **Stenoonops** 1 S
Termitoonops 5 S **Triaeris** 5 S **Zyngoonops** 1 S

Family **ORSOLOBIDAE** Cooke, 1965 2 genera, 4 species [4 S]

Afrilobus 3 S **Azanialobus** 1 S

Family **OXYOPIDAE** Thorell, 1870b 4 genera, 121 species [13 N, 108 S]

Oxyopes 100 [10 N, 90 S] **Peucetia** 15 [3 N, 12 S] **Hamataliwa** 5 S
Hostus 1 S

Family **PALPIMANIDAE** Thorell, 1870b 11 genera, 55 species [6 N, 49 S]

Chedima 1 N **Palpimanus** 26 [5 N, 21 S] **Anisaedus** 2 S
Badia 1 S **Boagrius** 1 S **Diaphorocellus** 4 S
Hybosida 4 S **Ikuma** 2 S **Sarascelis** 6 S
Scelidocteus 7 S **Steriphopus** 1 S

Family **PHILODROMIDAE** Thorell, 1870b 7 genera, 127 species [47 N, 80 S]

Halodromus 4 [3 N, 1 S] **Philodromus** 68 [31 N, 37 S] **Thanatus** 28 [11 N, 17 S]
Tibellus 19 [2 N, 17 S] **Hirriusa** 3 S **Suemus** 3 S
Tibitanus 2 S

Family **PHOLCIDAE** C. L. Koch, 1850 22 genera, 226 species [60 N, 166 S]

Artema 1 N **Holocnemus** 1 N **Micropholcus** 1 N

Modisimus 1 N
Pholcus 46 [28 N, 18 S]
Anansus 3 S
Crossopriza 5 S
Nyikoa 1 S
Quamtana 25 S
Zatavua 17 S
Nita 1 N
Smeringopus 21 [1 N, 20 S]
Buitinga 20 S
Leptopholcus 6 S
Paramicromerys 14 S
Smeringopina 8 S
Ossinissa 1 N
Spermophorides 27 [25 N, 2 S]
Cenemus 3 S
Ninetis 4 S
Pehrforsskalia 1 S
Spermophora 19 S

Family **PHYXELIDIDAE** Lehtinen, 1967 11 genera, 51 species [51 S]

Ambohima 2 S
Malaika 2 S
Phyxelida 18 S
Vidole 5 S
Kulalania 1 S
Matundua 1 S
Pongolania 2 S
Xevioso 9 S
Lamaika 1 S
Namaquarachne 5 S
Themacrys 5 S

Family **PISAURIDAE** Simon, 1890a 34 genera, 124 species [7 N, 117 S]

Cladycnis 1 N
Dolomedes 23 [1 N, 22 S]
Charminus 10 S
Cispius 10 S
Euprosthenops 9 S
Hygropoda 3 S
Paracladycnis 1 S
Ransonia 1 S
Tapinothele 1 S
Tetragonophthalma 1 S
Tolma 1 S
Walrencea 1 S
Nilus 1 N
Afropisaura 3 S
Chiasmopes 4 S
Conakrya 1 S
Euprosthenopsis 8 S
Hypsithylla 1 S
Perenethis 2 S
Rothus 3 S
Tapinothelella 1 S
Thalassiopsis 1 S
Voraptipus 1 S
Pisaura 4 N
Caripetella 1 S
Cispinilus 1 S
Dendrolycosa 1 S
Hala 2 S
Maypacius 9 S
Phalaeops 2 S
Tallonia 1 S
Tapinothelops 2 S
Thalassius 12 S
Vuattouxia 1 S

Family **PRODIDOMIDAE** Simon, 1884g 13 genera, 80 species [16 N, 64 S]

Prodidomus 24 [4 N, 20 S]
Austrodomus 2 S
Namundra 4 S
Purcelliana 1 S
Zimiris 2 S
Zimirina 13 [12 N, 1 S]
Eleleis 1 S
Plutonodomus 1 S
Theuma 26 S
Anagrina 2 S
Katumbea 1 S
Prodida 1 S
Theumella 2 S

Family **SALTICIDAE** Blackwall, 1841 148 genera, 1091 species [165 N, 926 S]

Ballus 3 N
Macaroeris 6 N
Plexippoides 1 N
Aelurillus 24 [14 N, 10 S]
Carrhotus 8 [2 N, 6 S]
Dendryphantes 9 [1 N, 8 S]
Festucula 3 [1 N, 2 S]
Heliophanus 111 [14 N, 97 S]
Leptorchestes 4 [3 N, 1 S]
Mexcala 18 [1 N, 17 S]
Neaetha 10 [6 N, 4 S]
Philaeus 5 [4 N, 1 S]
Pseudicius 24 [4 N, 20 S]
Salticus 10 [8 N, 2 S]
Thyenula 10 [1 N, 9 S]
Afrobeata 2 S
Araegeus 2 S
Baryphas 5 S
Chalcoscirtus 2 N
Mendoza 1 N
Pseudeuophrys 1 N
Afraflacilla 6 [2 N, 4 S]
Cosmophasis 10 [1 N, 9 S]
Euophrys 23 [12 N, 11 S]
Habrocestum 21 [6 N, 15 S]
Icius 16 [6 N, 10 S]
Marpissa 2 [1 N, 1 S]
Mogrus 16 [7 N, 9 S]
Neon 2 [1 N, 1 S]
Phlegra 50 [8 N, 42 S]
Rafalus 4 [2 N, 2 S]
Stenaelurillus 16 [4 N, 12 S]
Yllenus 7 [6 N, 1 S]
Afromarengo 1 S
Asemonea 14 S
Bavia 1 S
Heliophanillus 1 N
Paraneaetha 1 N
Synageles 3 N
Bianor 10 [2 N, 8 S]
Cyrba 9 [1 N, 8 S]
Evarcha 32 [3 N, 29 S]
Hasarius 9 [1 N, 8 S]
Langona 21 [2 N, 19 S]
Menemerus 40 [11 N, 29 S]
Myrmarachne 81 [2 N, 79 S]
Pellenes 23 [5 N, 18 S]
Plexippus 9 [2 N, 7 S]
Saitis 6 [2 N, 4 S]
Thyene 35 [1 N, 34 S]
Aenigma 1 S
Alfenus 2 S
Bacelarella 7 S
Baviola 3 S

Belippo 7 S
Brettus 1 S
Cembalea 3 S
Cynapes 3 S
Eburneana 3 S
Enoplomischus 2 S
Goleta 2 S
Hermotimus 1 S
Homalattus 6 S
Klamathia 1 S
Longarenus 1 S
Malloneta 1 S
Mashonarus 2 S
Microbianor 5 S
Modunda 1 S
Nigorella 4 S
Pachyballus 6 S
Padilla 17 S
Parajotus 3 S
Pharacocerus 9 S
Pignus 3 S
Polemus 2 S
Pseudoplexippus 1 S
Salpesia 1 S
Sibianor 3 S
Sonoita 1 S
Telamonia 5 S
Tomobella 2 S
Toticoryx 1 S
Uxuma 1 S
Viciria 21 S
Yogetor 2 S
Bokokius 1 S
Bristowia 1 S
Chrysilla 1 S
Dasycyptus 2 S
Echinussa 3 S
Giuiria 1 S
Gramenca 1 S
Hispo 9 S
Hyllus 52 S
Lamottella 1 S
Lophostica 3 S
Maltecora 3 S
Massagris 6 S
Microheros 1 S
Monomotapa 1 S
Nimbarus 1 S
Pachyonomastus 1 S
Pandisus 5 S
Pellolessertia 1 S
Phaulostylus 4 S
Pochyta 14 S
Portia 3 S
Rhene 16 S
Saraina 3 S
Simaetha 1 S
Tanzania 3 S
Thiratoscirtus 5 S
Tomocyrba 6 S
Tusitala 9 S
Vatovia 1 S
Wesolowskana 2 S
Brancus 6 S
Cavillator 1 S
Copocrossa 2 S
Depreissia 1 S
Encymachus 2 S
Goleba 5 S
Harmochirus 3 S
Holcolaetis 7 S
Kima 5 S
Langelurillus 11 S
Macopaeus 1 S
Margaromma 1 S
Meleon 8 S
Mikrus 1 S
Natta 2 S
Orsima 1 S
Pachypoessa 2 S
Paraheliophanus 4 S
Peplometus 2 S
Phintella 6 S
Poessa 1 S
Pseudemathis 1 S
Sadies 5 S
Schenkelia 4 S
Sitticus 2 S
Tarne 1 S
Thyenillus 1 S
Tomomingi 7 S
Ugandinella 1 S
Veissella 2 S
Xuriella 1 S

Family **SCYTODIDAE** Blackwall, 1864a 2 genera, 64 species [63 N, 1 S]

Scytodes 63 [8 N, 58 S]
Soeuria 1 S

Family **SEGESTRIIDAE** Simon, 1893a 2 genera, 38 species [6 N, 32 S]

Ariadna 34 [3 N, 31 S]
Segestria 4 [3 N, 1 S]

Family **SELENOPIDAE** Simon, 1897a 4 genera, 107 species [1 N, 106 S]

Selenops 34 [1 N, 33 S]
Anyphops 64 S
Garcorops 3 S
Hovops 6 S

Family **SICARIIDAE** Keyserling, 1880 2 genera, 21 species [3 N, 18 S]

Loxosceles 15 [3 N, 12 S]
Sicarius 6 S

Family **SPARASSIDAE** Bertkau, 1872 36 genera, 238 species [31 N, 207 S]

Cerbalus 6 N
Eusparassus 20 [9 N, 11 S]
Anchonastus 4 S
Berlandia 2 S
Chrosioderma 9 S
Leucorchestris 7 S
Nisueta 5 S
Nonianus 1 N
Micrommata 4 [3 N, 1 S]
Arandisa 1 S
Carparachne 2 S
Damastes 17 S
Megaloremmius 1 S
Orchestrella 2 S
Cebrennus 9 [8 N, 1 S]
Olios 82 [4 N, 78 S]
Barylestis 9 S
Cercetius 1 S
Heteropoda 1 S
Microrchestris 2 S
Palystella 4 S

Palystes 18 S | **Panaretella** 5 S | **Parapalystes** 5 S
Pleorotus 1 S | **Pseudomicrommata** 1 S | **Remmius** 5 S
Rhacocnemis 1 S | **Rhitymna** 4 S | **Sarotesius** 1 S
Staianus 1 S | **Stasina** 1 S | **Stasinoides** 1 S
Stipax 1 S | **Thelcticopis** 3 S | **Thomasettia** 1 S

Family **STIPHIDIIDAE** Dalmas, 1917a 1 genus, 2 species [2 S]

Ischalea 2 S

Family **SYMPHYTOGNATHIDAE** Hickman, 1931 3 genera, 5 species [5 S]

Anapistula 3 S | **Patu** 1 S | **Symphytognatha** 1 S

Family **SYNAPHRIDAE** Wunderlich, 1986 2 genera, 7 species [4 N, 3 S]

Synaphris 6 [4 N, 2 S] | **Africepheia** 1 S

Family **TELEMIDAE** Fage, 1913 3 genera, 7 species [7 S]

Apneumonella 1 S | **Cangoderces** 3 S | **Seychellia** 3 S

Family **TENGELLIDAE** Dahl, 1908 1 genus, 1 species [1 S]

Calamistrula 1 S

Family **TETRABLEMMIDAE** O. P.-Cambridge, 1873d 7 genera, 11 species [11 S]

Afroblemma 2 S | **Anansia** 1 S | **Cuangoblemma** 1 S
Hexablemma 1 S | **Mariblemma** 1 S | **Shearella** 1 S
Tetrablemma 4 S

Family **TETRAGNATHIDAE** Menge, 1866 16 genera, 154 species [12 N, 142 S]

Meta 10 [4 N, 6 S] | **Pachygnatha** 18 [2 N, 16 S] | **Tetragnatha** 61 [6 N, 55 S]
Diphya 1 S | **Dolichognatha** 5 S | **Dyschiriognatha** 1 S
Glenognatha 1 S | **Leucauge** 45 S | **Mecynometa** 2 S
Mesida 2 S | **Orsinome** 1 S | **Parameta** 2 S
Parazilia 1 S | **Pholcipes** 1 S | **Sancus** 1 S
Tylorida 2 S

Family **THERAPHOSIDAE** Thorell, 1869 30 genera, 162 species [11 N, 151 S]

Chaetopelma 3 [2 N, 1 S] | **Harpactirella** 11 [1 N, 10 S] | **Ischnocolus** 11 [8 N, 3 S]
Anoploscelus 2 S | **Augacephalus** 2 S | **Batesiella** 1 S
Brachionopus 5 S | **Ceratogyrus** 10 S | **Citharischius** 2 S
Encyocratella 1 S | **Encyocrates** 1 S | **Eucratoscelus** 2 S
Eumenophorus 2 S | **Euphrictus** 2 S | **Harpactira** 16 S
Heteroscodra 3 S | **Heterothele** 10 S | **Hysterocrates** 21 S
Idiothele 1 S | **Loxomphalia** 1 S | **Loxoptygus** 3 S
Mascaraneus 1 S | **Monocentropus** 1 S | **Myostola** 1 S
Nesiergus 3 S | **Phoneyusa** 25 S | **Pterinochilus** 9 S
Selenogyrus 5 S | **Stromatopelma** 6 S | **Trichognathella** 1 S

Family **THERIDIIDAE** Sundevall, 1833b 55 genera, 382 species [97 N, 285 S]

Anatolidion 1 N | **Asagena** 1 N | **Dipoenata** 3 N
Echinotheridion 1 N | **Eurypoena** 2 N | **Kochiura** 1 N
Macaridion 1 N | **Neottiura** 3 N | **Paidiscura** 2 N
Pholcomma 1 N | **Rugathodes** 1 N | **Sardinidion** 1 N
Simitidion 1 N | **Achaearanea** 4 [1 N, 3 S] | **Anelosimus** 15 [1 N, 14 S]
Argyrodes 28 [2 N, 26 S] | **Coleosoma** 2 [1 N, 1 S] | **Crustulina** 9 [3 N, 6 S]

Dipoena 20 [10 N, 10 S] **Enoplognatha** 15[12 N, 3 S] **Episinus** 12 [4 N, 8 S]
Euryopis 8 [4 N, 4 S] **Latrodectus** 11 [4 N, 7 S] **Phoroncidia** 16 [1 N, 15 S]
Platnickina 2 [1 N, 1 S] **Rhomphaea** 6 [2 N, 4 S] **Robertus** 2 [1 N, 1 S]
Steatoda 42 [13 N, 29 S] **Theridion** 103 [16 N, 87 S] **Theridula** 7 [1 N, 6 S]
Thwaitesia 9 [1 N, 8 S] **Argyrodella** 1 S **Ariamnes** 4 S
Asygyna 2 S **Audifia** 1 S **Bardala** 1 S
Carniella 1 S **Chorizopella** 1 S **Coscinida** 4 S
Dipoenura 1 S **Histagonia** 1 S **Moneta** 2 S
Nanume 1 S **Phycosoma** 4 S **Proboscidula** 2 S
Pycnoepisinus 1 S **Sesato** 1 S **Seycellesa** 1 S
Spinembolia 1 S **Stoda** 1 S **Styposis** 1 S
Theonoe 1 S **Thymoites** 2 S **Tidarren** 16 S
Zercidium 1 S

Family **THERIDIOSOMATIDAE** Simon, 1881a 4 genera, 8 species [8 S]

Andasta 2 S **Theridiosoma** 3 S **Wendilgarda** 2 S
Zoma 1 S

Family **THOMISIDAE** Sundevall, 1833b 69 genera, 453 species [71 N, 382 S]

Pistius 1 N **Firmicus** 18 [2 N, 16 S] **Heriaeus** 8 [4 N, 4 S]
Misumena 5 [3 N, 2 S] **Ozyptila** 18 [13 N, 5 S] **Pherecydes** 8 [1 N, 7 S]
Runcinia 14 [2 N, 12 S] **Synema** 56 [4 N, 52 S] **Thomisus** 49 [7 N, 42 S]
Tmarus 35 [3 N, 32 S] **Xysticus** 57 [31 N, 26 S] **Amyciaea** 1 S
Ansiea 2 S **Apyretina** 5 S **Ascurisoma** 1 S
Avelis 1 S **Bonapruncinia** 1 S **Borboropactus** 4 S
Camaricus 4 S **Cynathea** 3 S **Cyriogonus** 6 S
Diaea 12 S **Diplotychus** 1 S **Emplesiogonus** 2 S
Epidius 3 S **Felsina** 1 S **Geraesta** 2 S
Gnoerichia 1 S **Haedanula** 1 S **Herbessus** 1 S
Heriaesynaema 1 S **Heterogriffus** 1 S **Hewittia** 1 S
Holopelus 4 S **Iphoctesis** 1 S **Lampertia** 1 S
Ledouxia 1 S **Misumenops** 3 S **Monaeses** 10 S
Mystaria 2 S **Ostanes** 1 S **Oxytate** 6 S
Pactactes 3 S **Parabomis** 3 S **Paramystaria** 6 S
Parasmodix 1 S **Parastrophius** 1 S **Pasiasula** 1 S
Phaenopoma 3 S **Phrynarachne** 11 S **Plastonomus** 1 S
Platythomisus 9 S **Porropis** 1 S **Prepotelus** 4 S
Pseudoporrhopis 1 S **Pyresthesis** 1 S **Simorcus** 12 S
Smodicinus 1 S **Soelteria** 1 S **Stephanopis** 3 S
Stiphropella 1 S **Stiphropus** 12 S **Sylligma** 3 S
Tagulis 1 S **Talaus** 1 S **Tharrhalea** 3 S
Thomisops 8 S **Trichopagis** 1 S **Zametopias** 1 S

Family **TITANOECIDAE** Lehtinen, 1967 2 genera, 2 species [2 N]

Nurscia 1 N **Titanoeca** 1 N

Family **TROCHANTERIIDAE** Karsch, 1879d 1 genus, 16 species [1 N, 15 S]

Platyoides 16 [1 N, 15 S]

Family **ULOBORIDAE** Thorell, 1869 5 genera, 21 species [5 N, 16 S]

Polenecia 1 N **Hyptiotes** 3 [2 N, 1 S] **Uloborus** 11 [2 N, 9 S]
Miagrammopes 4 S **Philoponella** 2 S

Family **ZODARIIDAE** Thorell, 1881 35 genera, 258 species [42 N, 216 S]

Amphiledorus 2 N **Lachesana** 2 N **Palaestina** 1 N

Selamia 3 N
Mallinus 2 [1 N, 1 S]
Akyttara 4 S
Australutica 2 S
Chariobas 7 S
Cydrela 12 S
Dusmadiores 3 S
Mallinella 29 S
Omucukia 2 S
Psammoduon 3 S
Systenoplacis 21 S
Trygetus 3 N
Ranops 2 [1 N, 1 S]
Asceua 3 S
Caesetius 10 S
Cicynethus 3 S
Cyrioctea 5 S
Heradida 6 S
Mastidiores 1 S
Palfuria 9 S
Psammorygma 3 S
Thaumastochilus 2 S
Zodarion 23 N
Zodariellum 8 [6 N, 2 S]
Aschema 2 S
Capheris 10 S
Cryptothele 1 S
Diores 59 S
Hermippus 7 S
Microdiores 4 S
Procydrela 2 S
Rotundrela 2 S

Family **ZORIDAE** F. O. P.-Cambridge, 1893 1 genus, 5 species [5 S]

Voraptus 5 S

Family **ZOROCRATIDAE** Dahl, 1913 3 genera, 10 species [10 S]

Raecius 6 S
Uduba 2 S
Zorodictyna 2 S

Family **ZOROPSIDAE** Bertkau, 1882 4 genera, 33 species [6 N, 27 S]

Zoropsis 6 N
Griswoldia 12 S
Phanotea 13 S
Pseudoctenus 2 S

Comments in Tables

The following table (1) summarizes the catalogue of spider genera recorded from Africa.

Family	Genera	Species	N	S
AGELENIDAE C. L. Koch, 1837	11	72	28	44
AMAUROBIIDAE Thorell, 1870	8	17	9	8
AMMOXENIDAE Simon, 1893	2	13	--	13
ANAPIDAE Simon, 1895	6	12	1	11
ANYPHAENIDAE Bertkau, 1878	1	1	--	1
ARANEIDAE Clerck, 1757	73	388	49	339
ARCHAEIDAE C. L. Koch & Berendt, 1854	2	32	--	32
ATYPIDAE Thorell, 1870	1	1	--	1
BARYCHELIDAE Simon, 1889	9	39	--	39
CAPONIIDAE Simon, 1890	2	13	--	13
CHUMMIDAE Jocqué, 2001	1	2	--	2
CITHAERONIDAE Simon, 1893	1	4	1	3
CLUBIONIDAE Wagner, 1887	3	63	8	55
CORINNIDAE Karsch, 1880	34	224	14	210
CTENIDAE Keyserling, 1877	11	141	1	140
CTENIZIDAE Thorell, 1887	3	47	2	45
CYATHOLIPIDAE Simon, 1894	14	44	--	44
CYRTAUCHENIIDAE Simon, 1889	5	73	14	59
DEINOPIDAE C. L. Koch, 1850	3	14	--	14
DESIDAE Pocock, 1895	1	3	--	3
DICTYNIDAE O. P.-Cambridge, 1871	16	51	37	14
DIPLURIDAE Simon, 1889	4	12	--	12
DRYMUSIDAE Simon, 1893	1	3	--	3
DYSDERIDAE C. L. Koch, 1837	4	133	131	2

ERESIDAE C. L. Koch, 1850	10	75	13	62
FILISTATIDAE Ausserer, 1867	5	18	10	8
GALLIENIELLIDAE Millot, 1947	5	29	--	29
GNAPHOSIDAE Pocock, 1898	49	585	177	408
HAHNIIDAE Bertkau, 1878	2	33	5	28
HERSILIIDAE Thorell, 1870	7	47	4	43
HEXATHELIDAE Simon, 1892	1	5	1	4
IDIOPIDAE Simon, 1889	10	102	2	100
LEPTONETIDAE Simon, 1890	2	3	3	--
LINYPHIIDAE Blackwall, 1859	121	627	216	411
LIOCRANIDAE Simon, 1897	12	42	21	21
LYCOSIDAE Sundevall, 1833	52	632	140	492
MICROSTIGMATIDAE Roewer, 1942	1	6	--	6
MIGIDAE Simon, 1889	5	47	--	47
MIMETIDAE Simon, 1881	4	21	5	16
MITURGIDAE Simon, 1886	5	80	14	66
MYSMENIDAE Petrunkevitch, 1928	9	12	3	9
NEMESIIDAE Simon, 1889	6	63	10	53
NEPHILIDAE Simon, 1894	3	27	--	27
NESTICIDAE Simon, 1894	3	8	1	7
OCHYROCERATIDAE Fage, 1912	7	21	--	21
OECOBIIDAE Blackwall, 1862	5	53	38	15
OONOPIDAE Simon, 1890	36	113	20	93
ORSOLOBIDAE Cooke, 1965	2	4	--	4
OXYOPIDAE Thorell, 1870	4	121	13	108
PALPIMANIDAE Thorell, 1870	11	55	6	49
PHILODROMIDAE Thorell, 1870	7	127	47	80
PHOLCIDAE C. L. Koch, 1850	22	226	60	166
PHYXELIDIDAE Lehtinen, 1967	11	51	--	51
PISAURIDAE Simon, 1890	34	124	7	117
PRODIDOMIDAE Simon, 1884	13	80	16	64
SALTICIDAE Blackwall, 1841	148	1091	165	926
SCYTODIDAE Blackwall, 1864	2	64	63	1
SEGESTRIIDAE Simon, 1893	2	38	6	32
SELENOPIDAE Simon, 1897	4	107	1	106
SICARIIDAE Keyserling, 1880	2	21	3	18
SPARASSIDAE Bertkau, 1872	36	238	31	207
STIPHIDIIDAE Dalmas, 1917	1	2	--	2
SYMPHYTOGNATHIDAE Hickman, 1931	3	5	--	5
SYNAPHRIDAE Wunderlich, 1986	2	7	4	3
TELEMIDAE Fage, 1913	3	7	--	7
TENGELLIDAE Dahl, 1908	1	1	--	1
TETRABLEMMIDAE O. P.-Cambridge, 1873	7	11	--	11
TETRAGNATHIDAE Menge, 1866	16	154	12	142
THERAPHOSIDAE Thorell, 1869	30	162	11	151
THERIDIIDAE Sundevall, 1833	55	382	97	285
THERIDIOSOMATIDAE Simon, 1881	4	8	--	8
THOMISIDAE Sundevall, 1833	69	453	71	382

TITANOECIDAE Lehtinen, 1967	2	2	2	--
TROCHANTERIIDAE Karsch, 1879	1	16	1	15
ULOBORIDAE Thorell, 1869	5	21	5	16
ZODARIIDAE Thorell, 1881	35	258	42	216
ZORIDAE F. O. P.-Cambridge, 1893	1	5	--	5
ZOROCRATIDAE Dahl, 1913	3	10	--	10
ZOROPSIDAE Bertkau, 1882	4	33	6	27
Total 79 Families	1116	7935	1647	6288
			20.76%	79.24%
World Spider Catalog 109 Families	3802	41719		
% 72.48	29.35%	19.02%		

N = North African spiders, S = sub-Saharan spiders.

There are 7935 species, 1116 genera, and 79 families of spiders recorded from Africa. This means that more than 70% of the known spider families of the world are represented in the continent, while only 19% of the described spider species are recorded from Africa. About 79% of the African spiders are sub-Saharan.

The proportion of African species to the world species of each family and a comparison between North African and sub-Saharan spiders are presented in Table (2).

Table 2. Spider species of Africa compared with spiders of the world.

Family	Species		%	Family	Species		%
	World	Africa			World	Africa	
Agelenidae	515	72	13.98	Mysmenidae	123	12	9.76
Amaurobiidae	874	17	1.94	Nemesiidae	350	63	18.00
Ammoxenidae	18	13	**72.22**	Nephilidae	58	27	46.55
Anapidae	149	12	8.05	Nesticidae	206	8	3.88
Anyphaenidae	516	1	0.19	Ochyroceratidae	159	21	13.21
Araneidae	2999	388	12.94	Oecobiidae	105	53	50.48
Archaeidae	37	32	**86.49**	Oonopidae	617	113	18.31
Atypidae	43	1	2.32	Orsolobidae	181	4	2.21
Barychelidae	303	39	12.87	Oxyopidae	430	121	28.14
Caponiidae	74	13	17.57	Palpimanidae	131	55	41.98
Chummidae	2	2	**100**	Philodromidae	536	127	23.69
Cithaeronidae	6	4	66.67	Pholcidae	1084	226	20.85
Clubionidae	563	63	11.19	Phyxelididae	54	51	**94.44**
Corinnidae	960	224	23.33	Pisauridae	339	124	36.85
Ctenidae	475	141	29.68	Prodidomidae	302	80	26.49
Ctenizidae	123	47	38.21	Salticidae	5293	1091	20.61
Cyatholipidae	58	44	**75.86**	Scytodidae	228	64	28.07
Cyrtaucheniidae	134	73	54.48	Segestriidae	111	38	34.23
Deinopidae	57	14	24.56	Selenopidae	196	107	54.59
Desidae	182	3	1.65	Sicariidae	123	21	17.07
Dictynidae	564	51	9.04	Sparassidae	1094	238	21.75
Dipluridae	178	12	6.74	Stiphidiidae	136	2	1.47
Drymusidae	15	3	20.00	Symphytognathidae	65	5	7.69
Dysderidae	511	133	26.03	Synaphridae	12	7	58.33
Eresidae	100	75	**75.00**	Telemidae	45	7	15.56

Filistatidae	112	18	16.07	Tengellidae	51	1	1.96
Gallieniellidae	57	29	50.88	Tetrablemmidae	141	11	7.80
Gnaphosidae	2102	585	27.83	Tetragnathidae	949	154	16.23
Hahniidae	241	33	13.69	Theraphosidae	935	162	17.33
Hersiliidae	169	47	27.81	Theridiidae	2308	382	16.55
Hexathelidae	86	5	5.81	Theridiosomatidae	85	8	9.41
Idiopidae	303	102	33.66	Thomisidae	2123	453	21.34
Leptonetidae	213	3	1.41	Titanoecidae	44	2	4.54
Linyphiidae	4379	627	14.32	Trochanteriidae	152	16	10.53
Liocranidae	175	42	24.00	Uloboridae	265	21	7.92
Lycosidae	2367	632	26.70	Zodariidae	935	258	27.59
Microstigmatidae	15	6	40.00	Zoridae	79	5	6.33
Migidae	91	47	51.65	Zorocratidae	42	10	23.81
Mimetidae	156	21	13.46	Zoropsidae	78	33	42.31
Miturgidae	347	80	23.05				

Table 3. Spider families representd in Africa by more than 25% of the described species of the world (30 families).

Family	%	Family	%	Family	%
Chummidae	**100**	Migidae	51.65	Idiopidae	33.66
Phyxelididae	**94.44**	Gallieniellidae	50.88	Ctenidae	29.68
Archaeidae	**86.49**	Oecobiidae	50.48	Oxyopidae	28.14
Cyatholipidae	**75.86**	Nephilidae	46.55	Scytodidae	28.07
Eresidae	**75.00**	Zoropsidae	42.31	Gnaphosidae	27.83
Ammoxenidae	**72.22**	Palpimanidae	41.98	Hersiliidae	27.81
Cithaeronidae	66.67	Microstigmatidae	40.00	Zodariidae	27.59
Synaphridae	58.33	Ctenizidae	38.21	Lycosidae	26.70
Selenopidae	54.59	Pisauridae	36.85	Prodidomidae	26.49
Cyrtaucheniidae	54.48	Segestriidae	34.23	Dysderidae	26.03

Table 4. The most represented spider families in Africa (> 100 species).

Family	Species	Family	Species	Family	Species
Salticidae	1091	Zodariidae	258	Dysderidae	133
Lycosidae	632	Sparassidae	238	Philodromidae	127
Linyphiidae	627	Pholcidae	226	Pisauridae	124
Gnaphosidae	585	Corinnidae	224	Oxyopidae	121
Thomisidae	453	Theraphosidae	162	Oonopidae	113
Araneidae	388	Tetragnathidae	154	Selenopidae	107
Theridiidae	382	Ctenidae	141	Idiopidae	102

There is a great diversity of spider families in Africa (79 families, >70%) although only 19% of the world described spider species are recorded from Africa. This continent needs more intensive studies.

Reference

Platnick, N.I. 2010. The world spider catalog, version 11.0. American Museum of Natural History, online at http://research.amnh.org/entomology/spiders/catalog/index.html (June 11, 2010)